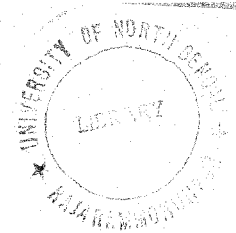
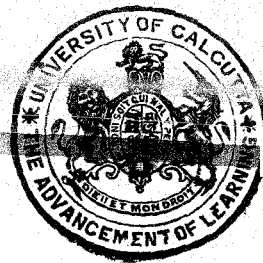


**REPORT**  
**OF THE**  
**UNIVERSITY ORGANISATION COMMITTEE**

REPORT  
OF THE  
UNIVERSITY ORGANISATION COMMITTEE  
APPOINTED BY THE SENATE

ON

The 8th December, 1928



CALCUTTA UNIVERSITY PRESS

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# REPORT

## CHAPTER I.

### INTRODUCTION.

1. The history of the development of the teaching and research activities undertaken by the University under its direct authority has been dealt with in detail in the Reports of the Sadler Commission, of the Government Grant Committee and also of the Post-Graduate Reorganisation Committee of 1925. As a result of the experience of the past few years and in view of the need for determining the financial situation in the future, it was felt that an investigation into the academic and financial position of the University would be of value. The Senate, on the recommendation of the Syndicate, adopted the following resolution at its meeting held on the 8th December, 1928 :

“I. That, in view of the fact that the present settlement with the Government comes to an end on May 31, 1930, the following Committee be appointed to report on the present conditions—academic, administrative and general—the future progress of the Post-Graduate Department of the University, and its relationship to the general work of the University and the Colleges, together with the financial questions connected therewith, with a view to securing permanently the most efficient and economical organisation :

1. The Vice-Chancellor.
2. The Director of Public Instruction, Bengal, or an officer of the Education Department who is on the Senate nominated by him.
3. President of the Post-Graduate Council in Arts or a representative of the Post Graduate Department, who is on the Senate, nominated by the Arts Executive Committee.

4. President of the Post-Graduate Council in Science or a representative of the Post-Graduate Department, who is on the Senate, nominated by the Science Executive Committee.
5. President of the Board of Accounts or a representative of the Board nominated by the Board of Accounts from amongst themselves.
6. R. B. Ramsbotham, Esq., M.B.E., M.A., B.Litt.
7. Professor Herambachandra Maitra, M.A.
8. Sir Devaprasad Sarvadhikary, Kt., C.I.E., C.B.E., M.A., LL.D.
9. Rai Upendranath Brahmachari, Bahadur, M.A., M.D., Ph.D., F.A.S.B.
10. Sir Rajendranath Mookerjee, K.C.I.E., K.C.V.O., M.I.E. (Ind.)
11. Rev. Father F. X. Crohan, S.J.
12. Rev. G. Howells, M.A., Ph.D., B.Litt., B.D.
13. Charuchandra Biswas, Esq., M.A., B.L.
14. Syamaprasad Mookerjee, Esq., M.A., B.L., Barrister-at-Law, M.L.C.
15. Sir Jadunath Sarkar, Kt., C.I.E., M.A., M.L.C.
16. Professor Jnanendranath Mukherjee, D.Sc.
17. Khan Bahadur Aziz-ul-Huq, B.L., M.L.C.
18. W. A. Jenkins, Esq., D.Sc., M.L.C.

II. That the Vice-Chancellor be appointed Chairman of the Committee which will appoint its own Secretary.

III. That a quorum for a meeting of the Committee be fixed at 10 and that the Committee be required to submit its report to the Senate by the 31st March, 1929.

IV. That in the cases of 2-5, the appointment of either the Director of Public Instruction and Presidents, or their representatives, as the case may be, shall be for the full term of the Committee.

V. That the Syndicate be empowered to fill up vacancies, if any, in the Committee.

VI. That the Committee be empowered to call evidence and associate with itself the following and other gentlemen :

- (a) Secretaries of the Post-Graduate Councils in Arts and Science when questions relating to the particular Council come up for discussion.

- (b) The Chairman and two members of each of the Boards of Higher Studies when relevant questions are considered.
- (c) Two representatives of the Governing Body of the University College of Science when questions relating to it are considered."

As representatives under 1, 2, 3, 4 and 5 the following became members of the Committee :

1. Rev. Prof. W. S. Urquhart, M.A., D.Litt., Vice-Chancellor.
2. H. E. Stapleton, Esq., M.A., B.Sc., F.A.S.B., M.L.C., Offg. Director of Public Instruction.
3. Prof. S. Radhakrishnan, M.A., D.Litt., President of the Post-Graduate Council in Arts.
4. Sir Nilratan Sircar, Kt., M.A., M.D., LL.D., D.C.L., President of the Post-Graduate Council in Science.
5. Bidhan Chandra Roy, Esq., B.A., M.D., M.R.C.P., F.R.C.S., M.L.C., President of the Board of Accounts.

2. After the first meeting of the Committee Sir Rajendranath Mookerjee, K.C.I.E., K.C.V.O., M.I.E. (Ind.), resigned and J. C. Mitra, Esq., M.A., B.L., was appointed by the Syndicate to fill the vacancy. Later R. B. Ramsbotham, Esq., M.B.E., M.A., B.Litt., also resigned and Adityanath Mukherjee, Esq., M.A., Ph.D., was appointed in his place.

3. The Committee appointed Mr. Syamaprasad Mookerjee, M.A., B.L., Barrister at Law, and Professor Jnanendranath Mukherjee, D.Sc., as Secretaries.

4. The scope of the enquiry, as decided on by the Committee after considering recommendations made by a Sub-Committee, is indicated by the information asked for from various Bodies and by the Questionnaire (*vide* Appendix No. 1).

5. The aim of our enquiry was :

- (a) to ascertain the academic requirements necessary to preserve, consolidate and stimulate the essential features of the present scheme of teaching and research ;
- (b) to suggest changes, if any, in the constitution and functions of the different administrative and academic bodies with a view to securing more effective and economic co-ordination of resources and activities;

- (c) to prepare a scheme of organisation of the offices in order to ensure economy and better administration ;
  - (d) to arrive, as far as possible, at a correct estimate of the financial situation which will arise when the teaching and research activities of the University are placed on a permanent and satisfactory basis as indicated in our report and to enable the Senate to forward a financial statement in accordance therewith to Government.
-

## CHAPTER II.

### ENQUIRY AND PROCEDURE.

6. The Questionnaire was issued to (1) the different Boards of Higher Studies, (2) their Chairmen, (3) the University Professors, (4) the Post-Graduate Teachers, (5) the Syndicate, (6) the Executive Committees, (7) the Board of Accounts, (8) the Boards of Management of Trusts, (9) the Governing Body of the University Law College, (10) the Governing Body of the Science College, (11) the Registrar and (12) the Controller of Examinations. The Questionnaire was also sent to the members of the Senate for such comments or suggestions as they desired to make.

7. Enquiries were also made of the affiliated Colleges, the other Universities in India, the Registrar, the Controller, the Secretaries of the Post-Graduate Councils and the Board of Accounts as indicated in Appendix No. 2.

The Secretaries of the Post-Graduate Councils were further requested to obtain from all Post-Graduate teachers a statement of the number of lectures delivered in the session 1928-29 together with the dates of their commencement and the number of groups of subjects that have been covered by these lectures. The class registers were also examined.

8. The following Sub-Committees, in addition to the one referred to in the last Chapter, were appointed :

(1) A Sub-Committee to consider and report on the present state of organisation of the University offices and to make suggestions for their future control and administration.

(2) A Sub-Committee to consider the materials received in reply to the circular issued to Indian Universities and to make suggestions in that connection.

(3) A Sub-Committee to consider the materials received in reply to the Questionnaire and circular letters regarding the number of hours of work, the number of lectures delivered by

each teacher and the number of lectures in each group of the subject.

(4) A Sub-Committee to report on the co-ordination and needs of the Departments of Physiology, Zoology, Geology and Botany.

(5) A Sub-Committee to prepare the Report in its final form.

The reports of the different Sub-Committees have been embodied substantially in this Report.

9. The Committee held 76 meetings. Proceedings of the meetings of the Committee and all materials received, including replies from various bodies, have been placed with the Registrar and any Member of the Senate, if he so desires, may consult them.

10. The Committee invited to its meetings for discussion the following :

(a) Chairmen and two representatives of each Board of Higher Studies.

(b) Representatives of the Governing Body of the College of Science, and of the Executive Committees, the Principal and the Vice-Principal of the University Law College.

(c) Prof. N. N. Gangulee, C.I.E., Ph.D., and Dr. N. N. Gupta to give evidence on Agriculture.

11. Owing to the complexity of the problems involved, the Committee found it impossible to report by the originally fixed date and were given extensions of time until September 24th, 1929.

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## CHAPTER III.

### THE PRESENT SYSTEM AND SOME OF THE RESULTING PROBLEMS.

12. As indicated in Chapter II, the first part of our enquiry attempts 'to ascertain the academic requirements necessary to preserve, consolidate, and stimulate the essential features of the present scheme of teaching and research.' In this Chapter we shall briefly describe the present scheme in its origin and growth and indicate its chief problems.

The present system of Post-Graduate teaching and administration was introduced as the result of the unanimous recommendations of a Committee,<sup>1</sup> appointed by the Government of India in 1916, with a view to making the University a teaching University at least in its Post-Graduate stage, in addition to its being an examining and affiliating one. The main recommendation of the Committee was that M.A. and M.Sc. teaching in Calcutta should be placed under the control of a central organisation within the University itself. The Committee also accepted the following two principles as fundamental :

“(a) An intimate association and co-operation between the College and the University staffs is (?) imperative in the interest of all concerned and of the development of higher teaching.

(b) It is necessary to constitute a suitable organisation within which these teachers will be enabled, by discussion among themselves, efficiently to conduct the teaching and examination of graduates.”

13. It is admitted on all hands that this centralisation introduced a new era in the history of the University and made possible the fuller realisation of the ideals embodied in Chapter XI of the Regulations and the research activities of University teachers have received recognition from scholars both at home and abroad. Previous to 1908 facilities for advanced teaching and research were of a limited character

<sup>1</sup> The Committee was presided over by Sir Asutosh Mookerjee, and had on it as members, Mr. W. W. Hornell, Sir Henry Hayden, Sir George Anderson, Sir Brajendranath Seal, Dr. G. Howells, Sir P. C. Ray, Prof. C. J. Hamilton and Mr. W. C. Wordsworth.

and mainly consisted of those which could be provided for in a small number of the affiliated colleges, as has been set out in detail in Chapter II of the report of the last Post-Graduate Reorganisation Committee.

14. About 1908 and thereafter the University established M.A. and M.Sc. classes in a number of subjects, partly with the help of a Government grant which enabled the University to appoint several Professors on the Arts side and mainly with the help of two munificent endowments made by Sir Taraknath Palit and Sir Rash Behary Ghose which enabled it to found the University College of Science a few years later. The University supplemented these sources of income from its available funds in order to develop its teaching and research activities. The initial Government grant was increased at a later period, thus enabling the University to wipe off its deficits. In 1925, as a result of the recommendations of the last Reorganisation Committee, a recurring grant of a maximum of three lakhs of rupees was made by the Government of Bengal for the maintenance of the Post-Graduate Department. As this arrangement terminates in 1930, we are now called upon to devise a scheme for establishing the Post-Graduate Department permanently on an efficient and economic basis.

15. The principal features of the centralised scheme now in existence are as follows :

A Post-Graduate Council in Arts, consisting of all the teachers in the Arts Department and the Heads of all Colleges in Calcutta affiliated to the B.A. standard, together with certain representatives of the Senate and the Faculty of Arts, has been created. This Body is large and it does not meet frequently. Effective supervision of work is carried out by the Executive Committee of the Post-Graduate Council which consists of representatives of each Board of Higher Studies together with the representatives of the Senate and of the Faculty. The proceedings of the Executive Committee are subject to ultimate confirmation by the Senate, which is finally responsible for the administration. The Boards of Higher Studies consist of teachers of the Department together with other representatives appointed by the Post-Graduate Council. These Boards are not definitely correlated with the ordinary Boards of Studies which are under the Faculties and the Syndicate. Teachers are appointed by the Senate on the recommendation of an Appointments Board of which the Vice-Chancellor is Chairman and whose personnel

varies according to the subject for which an appointment is made. The Chairman of a Board, who is elected annually by the other teachers, is responsible to the Executive Committee for supervision of work in that department; He is not necessarily either a whole-time teacher or a Professor. He is not an *ex-officio* member of the Executive Committee.

On the Science side the constitutions of these bodies are similar; but control is complicated by the existence of the Governing Body of the College of Science to which functions are allotted with regard to laboratory management.

16. In order to ascertain the merits and demerits of the present system, the information which the Committee have obtained has been analysed in the light of the two fundamental principles noted above. Our recommendations are based on our investigation on these lines, taking into account present tendencies in the sphere of University Education. The Reports of the last Reorganisation Committee and of the Sadler Commission, as well as the arrangements prevailing in a number of Indian Universities which have readjusted their activities in the light of the recommendations of the Commission, and above all the experience gained in the working of the Post-Graduate Department during the past twelve years, have afforded us very valuable information, covering a wide range of different points of view.

17. In view of the development of University Education in Bengal since the inauguration of the Post-Graduate scheme and the very substantial work done by the Post-Graduate Department in the promotion of original research and scholarly activities, we are convinced that we owe it to the province to improve and stimulate the teaching side of the University and to bring it into closer organic connection with the constituent Colleges and the other sections of the University. No enquiry such as ours can serve its purpose, if its scope is not wide enough to embrace all such collateral activities as have a direct bearing on the problems. Many of the changes which appear desirable to us are not, however, possible under the present Act, and are therefore contingent upon legislation which may not be carried out for a considerable time. We are making such recommendations as are permissible under the present Act, and we are also indicating, for further consideration by the Committee which has been appointed to consider the Draft University Bill, certain directions in which co-ordination and legislation seem to us to be specially necessary.

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## CHAPTER IV.

### GENERAL CONCLUSIONS.

#### *Principles.*

18. In making our recommendations we have been mainly guided by the following principles :

(1) There are subjects for the study of which every University should provide and others for which this University by reason of its peculiar position should make special provision.

(2) In each main subject of study it is necessary to make a distinction between basic courses of study and specialised ones. A knowledge of the former is essential for the effective pursuit of the latter.

(3) Close co-operation between affiliated Colleges and other academic bodies and the Post-Graduate Department is essentially desirable.

(4) In estimating the requirements for each department, the amount of work which may be expected from the teachers in the various grades, the number of lectures which a Post-Graduate student may be expected to attend and the number necessary for covering the prescribed courses of study should be the main consideration.

(5) Adequate facilities are to be given to teachers to carry on original research and opportunities should be afforded to able students at the proper stage for being trained in methods of research.

(6) Effective co-ordination of the available financial and academic resources is desirable.

These principles have been applied in formulating the proposals for the different departments, keeping in view our obligations to the present incumbents and the necessity for giving security of tenure to the teachers.

We have also considered the general questions of academic organisation and administration and have made definite recommendations thereon.

*Preliminary Training of Students seeking Admission to the Post-Graduate Classes.*

19. In the Post-Graduate classes we find that students of considerably different degrees of ability and equipment are brought together. Almost all who gave evidence testified to the fact that a majority of students, when they came up to the M.A. or Sc. classes from the Colleges, had not had the training necessary for profitably undertaking Post-Graduate studies without further preparation. The Post-Graduate courses are therefore to a large extent advanced courses of study treated the 'lecture' method. If the Post-Graduate work in Calcutta were completely confined to specialisation and research, the conclusion would be inevitable that lectures should be reduced and that the students should be given general guidance and should have considerable leisure for private study. The witnesses who gave evidence agreed that this type of Post-Graduate work at the M.A. or M.Sc. stage is not at present the ideal of full realisation. Professor Sir C.V. Raman's observations, coming from one whose distinction in research and advocacy of the importance of research are beyond question, are particularly valuable. He stated: "Four years' intermediate effective teaching is absolutely essential for practically all students. The two years' M.Sc. course is necessary in which the students must be given a thorough grounding in the fundamentals of their subject. As a rule only students are they fitted to take up research and not before."

*Relation between Basic and Specialised Training :  
Compulsory and Optional Papers.*

The aim of the M.A. and M.Sc. courses is to enable a student to acquire not only an adequate knowledge of an advanced part of the fundamentals of the main branches included in the course of study, but also a specialised detailed knowledge of a particular branch at least, so that he may be in a position to undertake independent investigation, after taking his M.A. degree. The division into compulsory and optional branches is based upon this principle. While the details of application will have to be worked out by the Boards, it must, therefore, be left to the Boards of Studies,

this general principle has been borne in mind by us in examining the existing courses in the different departments. Specialisation should be strictly consequent upon such basic training. This has an obvious bearing upon the relation of Post-Graduate to undergraduate studies, upon the stage at which specialisation should be introduced, and upon the kind of assistance which should be given in connection with basic training and specialisation respectively. In a general course of study, such as we must primarily provide for, should consist of a basic training in the fundamentals of the whole subject, so correlated, where possible, with previous training, that there may be no unnecessary repetition at the Post-Graduate stage of anything which has been studied in the undergraduate course. The student should then be able to take up without loss of perspective, certain more particular alternative specialised courses. These alternatives should be confined to what are called major branches. Certain departments of the University have already been organised on this basis.

21. Ordinarily a course of studies should consist of a foundation or compulsory papers, and alternatives should be allowed in the remaining papers requiring detailed and specialised knowledge. It should not be considered necessary, nor, if possible, to teach all possible optional groups by the same method. Full provision for lectures should be made for major optional groups that can usefully be studied here; for others it may be sufficient to arrange for personal tuition by competent members of the staff.

22. It is obvious that the same amount of specialisation is not possible in every subject and we urge that the conditions of this University should be taken into account in determining the directions in which such specialisation is desirable. Work in sub-sections, which are necessary in different major groupings, should be so organised as to avoid unnecessary duplication and the resources of the University should not ordinarily be expended in providing for separate sub-sections of a subject for which there is little or no demand. At the same time, we consider that it is desirable to make provision in the fullest way possible for the development of certain schools in which the University ought to encourage advanced study, *e.g.*, Oriental Studies, for which there should be in Calcutta facilities second to none in the

*Principles upon which Teaching Staffs required for the  
Different Departments should be determined.*

**23.** Staffs necessary for the different Departments must be calculated as a result of these considerations, taking into account the fact that leisure must be allowed to teachers to pursue their own work and to keep abreast of modern developments. They cannot be expected to lecture or teach to the same extent as teachers of undergraduate classes. Teachers of all grades should undertake teaching work (in the Post-Graduate classes) in addition to carrying on their own research, and whenever possible, guiding research workers. We are aware that teachers of different grades in different Universities have amounts of work varying from 2 hours to 20 hours per week including lectures, tutorials and practical work and we have taken this into consideration in making our decisions. The University year normally consists of 30-32 weeks. In interpreting the amount of work implied in the statement that a teacher has so many hours of lecture work a week, it should be borne in mind that one lecture per week in the 5th-year amounts on an average to 20 lectures a year, while one lecture per week in the 6th-year amounts to 28 lectures per year.<sup>1</sup> The smaller number of lecture hours in the 5th year is due mainly to the late publication of B.A. and B.Sc. results, and the late admission of students. We wish to draw the attention of the Syndicate to the desirability of securing the early publication of the results so that there may be no unnecessary delay in admitting students.

**24.** The following table sets forth what may be considered to be a reasonable number of hours of work per week for the different categories of whole-time teachers :

	Lectures.	Tutorial.	Total.
Professors	5	2	7
Readers	8	4	12
Lecturers	8	4	12
Post-Graduate Fellows	General assistance.		
Demonstrators or Assistant Lecturers (Science side)	20 periods of practical work.		

<sup>1</sup> These figures have been obtained from actual inspection of the registers of 1928-29.

In the case of teachers who are appointed Heads of Departments a modification of this scale will be necessary.

The teachers in the Science Departments should be required to deliver a smaller number of lectures and to devote more time to the practical work of the students.

Part-time teachers should participate in tutorial work in addition to delivering lectures and normally two lectures and one tutorial per week should be their allotment of work.

25. The *majority* are of opinion that tutorial work would vary from Department to Department and they suggest that as a rough guide two tutorial periods should be regarded as equivalent to one lecture. The *minority* are of opinion that tutorial work should be regarded as equivalent to lecture work. The lectures are of an advanced type and students in the Arts Departments should not ordinarily be required to attend more than 12 hours of lecture and 1 hour of tutorial and in no case more than 14 hours of lecture and 1 hour of tutorial per week. Tutorial groups should ordinarily consist of 5 students each.

We consider that 8 lectures and approximately 20 periods of practical work per week are adequate for the Science students.

26. In our report upon the different Departments we have analysed the work in the light of the principles and figures above outlined and have given statistics in support of our conclusions. We are aware that a strictly mathematical application of such principles to all teachers or to all subjects is not desirable and we do not intend that the hours of work, lectures or tutorial, indicated against various posts, should be interpreted literally. We consider that, as an average, they are applicable and that such an analysis gives a correct idea of the staff necessary and desirable in any particular Department. The work will, we expect, be arranged so as to meet the convenience of all teachers. Those specially interested in research and producing results of value should be given every facility and encouragement, while those whose interests may be more specially directed towards teaching should be given a greater part in the teaching activities of the Department. In dealing with individual Departments, we have given full consideration to the peculiar needs of the subject and while our conclusions are stated in a mathematical form, it will, we think, be found that they embody all the principles we have laid down.

27. The analyses given of teachers' work in the past and all other statistics refer to last year's figures only. A more exhaustive analysis over a period of several years would perhaps have given more reliable averages, but there is no reason to suppose that, taken as a whole, they give an incorrect estimate of the amount of work required in particular departments. Applied to individuals, there are of course in all probability variations, which may not be small, from year to year, and we do not desire that any general conclusions should be drawn adversely criticising the work of individual teachers.

#### *Gradation of Teachers.*

28. We recommend that there should be four grades of teachers in the University—Professors, Readers, Lecturers, and Assistant Lecturers or Demonstrators. In addition, there should be a certain number of Post-Graduate Fellowships about which we have made special recommendations.

#### *Professors.*

29. Professors should be scholars of distinction with a good record of research achievement or original work. Some of us feel however that it may sometimes be desirable to appoint as Professor a person who, although he has not achieved distinction in research work is an inspiring teacher from whom the students would receive considerable benefit. Professors should be capable of guiding others in research and, in the case of those responsible for organisation, be good administrators, although this must necessarily be a secondary consideration.

#### *Heads of Departments.*

30. In most Departments there is a considerable amount of work connected with departmental organisation and academic control, and on the Science side with laboratory supervision as well. We recommend that Heads of Departments should be appointed for this work. Usually a Professor or a senior teacher would be appointed Head, and for this work he should receive extra remuneration. At the same time, there are in the University distinguished Professors whose achievements and ability to inspire others and whose personal inclinations may be such as may render it undesirable that their time and energies should be taken up by departmental

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duties. Our detailed recommendations on the appointment and duties of Heads of Departments are given elsewhere (*vide* para. 176).

*Transition from the Present Situation to the Suggested Scheme.*

31. It will appear that while in some departments calculations based upon the above considerations have resulted in a slight diminution of staff, in other Departments they have actually resulted in an increase of staff. We desire to say at the very outset that in a department where there is any such diminution, we fully accept in connection with our recommendations the principle that the University has a moral obligation towards all its whole-time teachers, who in spite of the fact that legally their engagements terminate in December, 1930, have to all intents and purposes been engaged on the assumption that there was a reasonable prospect that their service in the University would be made permanent. In order to give effect to the transition from the present situation to our suggested scheme in each department, we have to devise a method which we consider to be both practical and equitable. In certain departments there are men of advanced age nearing the time when they can reasonably be expected to retire. It is different in other departments. In one department, for example, the ages of the whole-time teachers are 58, 38, 33, 36, 33, 33, 33. Except in the first case, therefore, the retirement age is from 25-30 years ahead, and to await a natural approach to the present recommended scheme by the lapsing of vacated posts is to all intents and purposes to sanction permanently the present cadre. It is desirable to consider the possibility of arriving at a mutually acceptable scheme. The teachers have no permanent agreements and their engagements terminate on December 31st, 1930. They will on that date, however, have been engaged for varying periods up to twelve or more consecutive years in whole-time work in the University. The University cannot terminate their engagements without considering its obligations towards them. We therefore make the following recommendations.

32. If through the application of these recommendations it should be found necessary to terminate the services of any member of the whole-time staff, the personnel to be retained should be decided by a Special Selection Committee as provided

for in the next section and the persons whose services are to be terminated should be dealt with in the following manner :

(a) Subject to the recommendations in (d) and (e) below, the services of these persons should be terminated on the 31st May, 1931, and notice to this effect should be given to them not later than the 1st December, 1930.

(b) Provident Fund contribution from the University at  $8\frac{1}{2}$  per cent. of their salaries, should be paid retrospective to the beginning of their services—interest not being payable except in accordance with the already sanctioned scheme. Any amount already paid or credited is to be included in the above.

(c) One month's pay should be given for each completed year of service (the pay should be the average calculated upon the last three years of service).

(d) After the Senate on the report of the Special Selection Committee has made the permanent appointments in accordance with our recommendations, the University will ask such whole-time teachers as are not given permanent appointments and were in the service of the University prior to 1st June 1925 to decide between the following alternatives. They may either leave University service on 31st May 1931, when they will be dealt with as in (b) and (c) above; or, if they so choose, they will continue in the service of the University till 31st May 1933, and on the termination of this period they will be entitled only to Provident Fund as in (b).

(e) Those teachers who have been appointed subsequent to 1st June 1925, will be given a similar choice, but that in case they choose to remain, they will be reappointed until 31st May 1932, instead of 1933, and they will similarly forfeit the compensation under (c) and receive Provident Fund contributions as under (b).

**33.** We recommend to Government that efforts should be made to give suitable employment to those members of the whole-time staff whose services are not continued by reason of reduction of posts.

#### *Re-appointment of Present Staff.*

**34.** On the termination of their present agreements appointments on a permanent basis should be given in each Department to such members of the whole-time staff as are reappointed in accordance with the scheme laid down in the recommendations of this Committee.

**35.** For each teaching department in the University a

Special Selection Committee should be set up for this purpose constituted as set forth hereafter.

This Special Selection Committee should consider the work and qualifications of all members of the staff and, where such work has been satisfactory should recommend to the Senate that the whole-time teachers shall be given permanent appointments, provided that the number of such appointments shall not exceed the requirements of the scheme recommended in this Report. Where the number of teachers who have given satisfactory service is greater than the number of posts to be filled, the Selection Committee should make definite recommendations as to which teachers shall constitute the permanent cadre.

**36.** On the recommendation of the special Selection Committees, the Senate will also appoint part-time lecturers in accordance with our recommendations for such period as it may decide.

**37.** The compensation we have previously proposed should only be granted to the holders of such appointments as are not renewed on account of reduction of staff.

The appointments of those whole-time teachers whose re-appointment the Special Selection Committee cannot recommend for other reasons should be terminated on 31st May 1931, and they should be given notice to that effect. They should be entitled to receive the sum calculated according to paragraph 32 (b) above but not the remuneration according to paragraph 32 (c).

**38.** We recommend that each of the Special Selection Committees stated above should consist of 8 members and be constituted as follows :

1. The Vice-Chancellor, Chairman.
2. The President of the Post-Graduate Council concerned.
- 3, 4. Two members appointed by the Executive Committee of the relevant Post-Graduate Council of whom (a) one shall be an expert (if possible, a Professor of the Department but not a whole-time Lecturer) and (b) one other member not connected with the Department.
- 5, 6. Two members nominated by the Syndicate of whom at least one shall be an expert who shall not be a member of the teaching staff of the University. Whenever possible this expert shall be selected from the staff of another University.
- 7, 8. Two members nominated by the Chancellor after consultation with the Vice-Chancellor. Of these two, one shall be an expert.

## CHAPTER V.

### CONDITIONS OF SERVICE OF TEACHERS.

#### *Scales of Pay.*

39. The remuneration offered to experienced and distinguished teachers in the University is not satisfactory. All the other Universities offer better terms and in many cases the responsibility attached to the work in Calcutta is greater than that elsewhere and we therefore make the following recommendations.

40. The scale of pay of Professors should be Rs. 700- $\frac{5}{2}$ -1,000. An extra allowance not exceeding Rs. 250 may be given for special qualifications to a Professor, provided that if he is appointed Head of a Department, his total allowance shall not exceed Rs. 250. Initial salaries higher than the minimum pay indicated in the scale may be granted if the Senate so decide.

All whole-time University Professors, including the holders of Endowed Chairs, who are now on fixed salaries, may be placed by the Senate on the grade Rs. 700- $\frac{5}{2}$ -1,000 on the recommendation of a Selection Committee constituted as for the appointment of new Professors, provided that they take part in the teaching work of the Post-Graduate Department as required.

The standard of attainment by which the Selection Committee should judge whether these Professors should be put on the new grade should be the same (both for Arts and Science Departments) as that which applies to new appointments to University Chairs. In any case where the Selection Committee is not prepared to make such recommendation, the occupant will continue to remain outside the grade.

41. Readers should be appointed on the grade Rs. 500- $\frac{5}{2}$ -700. Readers, if appointed Heads of Departments, should be entitled to an extra allowance not exceeding Rs. 150. Initial salaries higher than the minimum pay indicated in the scale may be granted if the Senate so decide.

The majority consider that in addition to the number of Readerships recommended in this report, the Senate, in exceptional cases, not more than three in all, should sanction the status

and pay of Readers to individual lecturers. The Senate should decide such cases on the report of the Selection Committees constituted for the appointment of Professors and Readers. In these cases such proposals should be initiated in the first instance by the relevant Executive Committee.

42. Lecturers should be placed on the grade Rs. 200-20-500. Lecturers, who are at present on the grade 200-25-500, should continue to draw the annual increment of Rs. 25. We contemplate that Lecturers outside the grade on special rates of pay will be appointed in certain departments. Initial salaries higher than the minimum pay indicated in the scale may be granted if the Senate so decide; Lecturers should also be eligible for the allowance given to Heads of Departments if they are called upon to act as such.

43. Demonstrators or Assistant Lecturers (Science) should be placed on the grade Rs. 150-15-300.

44. Post-Graduate Fellowships should be established and each Fellow should be paid a fixed salary of Rs. 125<sup>1</sup> per month. We do not consider that they should be regarded as part of the permanent staff of any department. We feel that there should be a few posts in the University to which specially brilliant students could be appointed, pending their obtaining permanent posts as teachers. They would carry on research and receive a certain amount of training as teachers by delivering special courses of lectures when required. They should also be expected to take part in the tutorial or practical work. We are suggesting a salary of Rs. 125 as we consider that it is not desirable to offer such remuneration as would induce a Fellow to continue as such for a long period rather than accept an appointment in a College or elsewhere. The posts are to be definitely regarded as stepping stones and, in order to ensure this, we recommend that they shall be tenable for two years only—renewable under exceptional circumstances for one additional year but not for more. We do not recommend that, apart from Ancient Indian Mathematics, they should be allocated to any particular department, as we consider that they should be awarded to the most brilliant students available at the time of award. Distribution among the different departments should however be a factor affecting the award and we suggest that ordinarily they should not be appointed to a department which has recently had one attached to it.

<sup>1</sup> The minority are in favour of Rs. 150.

We recommend that seven such Fellowships should be established, five in the Arts Department and two in the Science. None of these should be awarded for research in Indian Vernaculars to which department research scholarships have been already attached. These Fellowships should be awarded by the Executive Committee of the relevant Post-Graduate Councils. We wish it to be understood that the work of these Fellows may, by decision of the Executive Committee, be carried on either under the guidance of a University teacher or of a person approved by the Executive Committee.

45. A whole-time teacher should normally do the amount of work indicated in our recommendations, in one or related departments. If, however, independently of the terms of his agreement with the University, a particular member of the staff is requested to work in another department in addition to doing his normal work, additional remuneration should be payable to him.

46. *Part-time Teachers.*—Ordinarily allowances at the rate of Rs. 100 per month should be payable to or on behalf of part-time teachers. We contemplate however that there may be teachers for whom it will be necessary to deviate from the above recommendation and their remuneration should be such as may be fixed by the Senate on the recommendation of the Selection Committee.

With regard to part-time teachers, who are teachers in Government Colleges, we recommend that the present arrangements should continue.

Part-time teachers should not be admitted to the benefits of the University Teachers' Provident Fund.

Part-time teachers should be appointed for such periods as the University may decide.

#### *Age of Retirement for Whole-time Teachers.*

47. All whole-time teachers in grade should retire at the age of 60 but by a special resolution of the Senate their term of appointment may be extended to 65 on the recommendation of the relevant Executive Committee.

*Appointment of Teachers Selection Committees.*

48. After considering the evidence of the witnesses we are of opinion that a change in the present method of making appointments to the teaching staff of the University is desirable. We consider that when appointments to the higher posts in the University have to be made, the opinion of experts other than those already in the employment of the University should be obtained. We recommend that the following system be followed in future :

I. *Appointments to Professorships and Readerships :*

Whenever there is a vacancy in a Professorship or Readership other than the endowed Chairs, a Selection Committee should be set up constituted as follows :

1. Vice-Chancellor, Chairman.
2. President of the relevant Post-Graduate Council.
3. One member appointed by the Senate.
4. One expert appointed by the Syndicate.
5. One member appointed by the relevant Executive Committee.
- 6, 7, 8. Three experts (not connected with this University) to be nominated by other Universities, bodies or persons on the invitation of the Syndicate after consultation with the relevant Executive Committee.

We feel that the decision of an authoritative body of this nature should carry great weight and we recommend that appointments should be made by the Senate only in accordance with the recommendations of the Committee. In the cases of endowed Chairs we recommend to the Trust Boards concerned the adoption, as far as possible, of a uniform mode of appointment as proposed above.

II. *Appointments to Posts other than Professorships or Readerships :*

In the case of these appointments there is not the same necessity to consult outside experts and we propose that appointments should be made by the Senate only in accordance with the recommendation of a Selection Committee constituted as follows :

1. Vice-Chancellor, Chairman.

2. President of the relevant Post-Graduate Council.
3. Head of the relevant Department.
- 4, 5. Two members to be nominated by the Syndicate of whom one shall be a Principal or a teacher of an affiliated College.
- 6, 7. Two members appointed by the relevant Post-Graduate Executive Committee of whom at least one, where possible, shall be a Professor or a Reader of the Department.
8. If the Committee thus constituted does not contain any Mahomedan member, the Syndicate shall nominate an additional member who shall be a Mahomedan.

The *minority* were of opinion that in (8) above the words "the Syndicate shall nominate" should be replaced by the words "the Syndicate *may* nominate."

The Senate should have the power to send back the names proposed by the Selection Committee for its review.

#### *Rules Governing Appointments.*

49. We recommend also the following rules for adoption :

I. All whole-time teachers shall be given contracts embodying their terms of engagement.

II. The following procedure shall be followed with regard to all appointments :

(1) In the case of new appointments whole-time teachers shall ordinarily be engaged on probation for 2 years after which their appointments may be made permanent. In the case of appointment of Professors, this rule may be relaxed.

(2) When any vacancy arises, the post shall be advertised and applications invited. A Selection Committee in accordance with the accepted scheme shall be set up and shall consider the applications received, together with any statement or recommendation which may be sent by the relevant Executive Committee. The choice of the Selection Committee shall not necessarily be confined to those who have applied.

(3) No appointment shall be made unless the Selection Committee is satisfied that the candidate possesses the full minimum qualifications considered necessary for the post.

50. The above rules shall not apply in the case of the present incumbents who will be reappointed on the recommendation of the Special Selection Committees.

### *Temporary Appointments.*

51. The amount of tutorial work required according to our scheme will fluctuate with the number of students actually reading in a department. If in any particular year the increase in tutorial work necessary is such that the normal staff cannot reasonably be expected to cope with it, then we recommend that temporary appointments of lecturers outside the grade or of part-time lecturers should be made. In making such appointments, the claims of applicants who have already served the University should be given priority. For such appointments the Executive Committee should make definite proposals to the Senate for sanction.

52. The Executive Committee should have the power of making temporary teaching arrangements, whenever necessary, provided that if such arrangements involve additional financial commitments, the Executive Committee shall refer the matter in the first instance to the Board of Accounts.

### *Leave Rules for the Teaching Staff.*

53. After considering the draft leave rules framed by a Committee of the Syndicate, we recommend that the following leave rules be adopted for whole-time teachers including Professors.

We are of opinion that it is open to the Senate to modify the leave rules as and when it may think necessary, provided that in the case of those who have been appointed on terms already agreed upon, the rules will be modified only by mutual consent. The rules which are now suggested should be applicable to all future incumbents, and to such present incumbents as have not been engaged on terms involving special leave facilities. We are of opinion that they should apply to all teachers of the University including those appointed by the Trust Boards as far as is legally admissible.

1. Each teacher shall be eligible for leave on full pay for a period equal to one-ninth of the time spent on active service including regular vacations, but not leave,

2. Leave due shall be leave earned less leave taken with allowances granted under these rules. Study leave shall not be debited to the leave account.

3. Leave may be either affixed or prefixed to vacations.

4. Leave on full pay shall not be taken for a period exceeding six months at any one time including vacations. Leave may be taken on half pay, one half of the leave so taken being debited to the leave account on full pay.

5. Short urgent leave on full pay not exceeding 10 days in any one academic year may be granted by the immediately superior authority to any teacher. Intimation of such leave shall be immediately sent to the authorities. Such leave shall not be added to University holidays or vacations but may be added to Sundays. Short urgent leave shall be debited to the leave account.

6. Leave on Medical Certificate may be granted at any one time—

(i) On full pay to the extent due for a period not exceeding six months including vacations.

(ii) On half pay to the extent due.

(iii) When not due—

(a) On half pay for a period not exceeding 6 months.

(b) On quarter pay for a period not exceeding 12 months.

(c) Without pay for a period not exceeding 2 years.

Leave not due when taken shall be debited to the leave account and no further leave shall be due until the leave account shows a credit balance.

7. Study leave on full pay or any less amount, as may be determined by the Senate, may be granted by the Senate on the recommendation of the Executive Committee to any teacher for a total period not exceeding two years in his whole service. Periods spent on deputation shall not count as study leave.

8.<sup>1</sup> The total amount of leave taken on full pay shall not exceed two years (excluding vacations) in the whole service.

9. Active service means all service in the University except leave or vacations taken in conjunction with leave.

10. The total amount of leave with pay of any kind at any one time shall not exceed two years.

11. Leave allowance shall be calculated with reference to the pay drawn by the teacher on the day preceding that on which he proceeds on leave.

<sup>1</sup> The minority were of opinion that this rule should be deleted.

12. Short urgent leave will be granted by the Head of the Department. Other leave will be granted by the Executive Committee concerned except that in cases where additional commitments are involved the Board of Accounts will be consulted before leave is finally granted.

13. Nothing in these rules is intended to restrict the unfettered discretion of the authorities in refusing or revoking the grant of leave, should the interests of the University so require.

#### *Leave of Part-time Teachers.*

54. We do not consider it necessary to elaborate rules embodying leave privileges of part-time teachers. We recommend that the Executive Committees should be empowered to grant leave to part-time teachers as may be considered necessary provided that the leave so granted shall not be more liberal than that admissible to whole-time teachers.

#### *55. Provident Fund Rules for Teachers and Employees other than Inferior Servants as defined in Government Pension Regulations.*

1. A person who has been appointed to a permanent post in the service of the University, other than a person holding a pensionable post or one carrying a gratuity, shall subscribe to the University Provident Fund. Persons excluded under this exception should, if possible and on mutually agreeable terms, be allowed to join the Provident Fund. If a probationer is afterwards confirmed he shall be entitled to contribute to the Provident Fund the amount which he would have been entitled to contribute if he had been appointed to a permanent post when he first joined service. In such an event the University shall contribute a like amount but not the interest.

2. A sum equal to  $8\frac{1}{3}$  per cent. of the salary shall be deducted from the salary of each subscriber every month and paid into the Provident Fund and the University shall contribute an equal amount in respect of each subscriber.

Provided that a member who has insured his own life and assigned the policy to the University shall be entitled, on production of the life insurance premium receipts, to a refund of the

amount paid as premium, but the amount so returned in one year shall not exceed the member's contribution for that year.

In calculating the monthly salary on which deductions are to be made and contributions are to be paid, any fraction of a rupee shall be omitted.

For the purpose of this section the term "salary" shall be held to mean monthly salary and regular monthly allowances by way of remuneration for service, including leave allowances but not travelling and house allowances or casual payments for special work.

3. A University Provident Fund Account shall be opened at the Calcutta Branch of the Imperial Bank of India to which the total deductions from the salaries, as well as the corresponding contributions from the University, shall be credited at the beginning of each month. Any cash balance of the Fund in excess of Rs. 5,000 shall ordinarily be invested before the end of each month in securities, approved by the Syndicate in consultation with the Board of Accounts in accordance with the provisions of Sec. 20 of the Indian Trust Act of 1882. All investments and securities shall be held in the name of the University which is the Body Corporate under the Act.

4. The interest earned by the Provident Fund money shall be divided proportionately amongst the subscribers and credited to their accounts annually provided that the amount so credited shall in no case be less than 3 per cent.

5. Each subscriber on retirement, or his heirs or assigns on his death, shall receive the amount standing at his credit together with interest calculated up to the beginning of the month in which he retires or dies.

*Note.*—Retirement under this section means either (a) final retirement after attainment of the age of retirement, (b) resignation after completion of not less than three years' service, or (c) loss of appointment due to abolition of the post or (d) retirement on medical grounds.

Provided that if a subscriber resigns before the completion of three years' service and if his resignation has the approval of the University, he shall receive with interest the amount as stated above and if such resignation has not the approval of the University he shall not receive the contribution of the University and the interest thereon.

And provided further that in the event of dismissal on account of misconduct and gross neglect of duty he shall forfeit the University contribution. (This proviso will be deleted if it is not in conformity with the provisions of the Provident Fund Act.)

6. Each subscriber shall receive from the Registrar of the University, not later than the 30th September of each year, a statement of his account showing the opening balance at the beginning of the previous financial year, the deposits and withdrawals during the previous financial year ending June 30th and the balance after the addition of interest. He must satisfy himself as to the correctness of this statement and errors should be brought to the notice of the Registrar within one month from the date of its receipt.

7. A subscriber who is on leave may continue to subscribe during his leave either on the basis of his leave allowance or his salary. But in case of leave without pay no contribution shall be payable by the University. (This proviso will be deleted if it is not in conformity with the provisions of the Provident Fund Act.)

8. Temporary advances may be granted, with the sanction of the Chief Executive Authority, to the subscribers from the sums at their credit in the Provident Fund subject to the following conditions :—

(a) Interest shall be charged at the rate of 6 per cent. per annum.

(b) The total amount of such advances at any time shall not exceed six months' salary of the subscriber provided that the amount so advanced does not exceed one half of his own contributions.

(c) Advances with interest shall be repayable by monthly instalments by deduction from his salary by monthly instalments not exceeding twenty-four to be specified at the time of granting the advance.

(d) An advance shall be granted by the Chief Executive Authority only on a written declaration of the intending borrower that it is necessary to meet expenses in connection with any one of the following events :—

(i) Serious illness of the subscriber or his wife or children or a dependant as defined in the Provident Funds Act (Act XIX of 1925).

(ii) The marriage of a daughter.

(iii) The death of parents, daughter or son or wife or husband.

(iv) The building of his house.

(v) Other reasons satisfactory to the Chief Executive Authority and not repugnant to the Provident Fund Act.

(e) No further advance shall be granted unless six months have elapsed since the repayment of the last instalment of his previous loan.

9. Each subscriber shall, as soon as possible after he joins the Fund, fill in a 'Form' of Declaration' showing how he wishes the amount of his accumulation to be disposed of after his death.

10. For the purposes of these rules the following survivors only of a subscriber shall be held to constitute his family :—

(a) Widow or widows.

(b) Children.<sup>2</sup>

(c) Widow or widows and children of a deceased son or children of a daughter.

Where a subscriber comes under any special law of succession the term family should be extended so as to include legal heirs under such law.

11. A subscriber may in his declaration provide for the assignment of the whole or a portion only of the amount. (The disposal of the balance will be governed according to Law.)

12. The Declaration submitted by a subscriber is revocable at any time and a fresh Declaration shall be operative. If minors are nominated in a Form of Declaration the person or persons to whom sums intended for their benefit are to be paid should be stated in the Form of Declaration.

13. In the event of the subscriber having a family as defined in clause (10) he is not permitted in his Form of Declaration to leave the amount of his accumulations or any part of it to any one outside the family.

14. On a subscriber's death before retirement the amount shall be disposed of as follows :—

(a) It, or such portion of it as may be specified in an accepted Form of Declaration, will be divided among all or any

<sup>1</sup> Specimen form printed in the Appendix No. 11.

<sup>2</sup> An adopted child shall be considered to be a child within the meaning of this rule when under the personal law of the subscriber, adoption is legally recognised as conferring the status of a natural child.

members of his family in accordance with the terms of the Declaration. If the Declaration relates to a portion only of the amount, the balance will be distributed to persons mentioned in the Declaration *pro rata*.

(b) If there be no party entitled to receive under paragraph (a) above, the amount will be paid to the subscriber's legal representative or such other person or persons as may be determined by a Civil Court, competent to pass orders in this respect, provided that if the sum remaining at the credit of the subscriber does not exceed Rs. 500, it may be paid to such person or persons as the Senate may consider to be the proper person or persons to receive it.

15. The University will not be bound by, or recognise, any assignment or encumbrance executed or attempted to be created which affects the disposal of the accumulations of a subscriber.

16. The Provident Fund Accounts shall be audited annually by a Government Auditor together with the other accounts of the University.

17. The securities of the Provident Fund shall be appraised by the Board of Accounts at the market value ruling on the last day of each University financial year and after such appraisal if the difference between the market value of the securities and the total amount of liabilities is substantial the matter shall be brought to the notice of the Senate for such action as they think fit.

18. All questions of interpretation of these rules shall be decided by the Senate, whose decision shall be final.

19. The accounts of the Provident Fund shall be kept in a form approved by the Board of Accounts.

20. Subject to the consent of the subscriber concerned in each case and provided it is not repugnant to the provisions of the Provident Fund Act these rules shall apply to the amounts accumulated in the names of the members of the teaching staff up to the date when these rules shall come or shall have come into force, in the account called the Provident Fund Account, and the amounts paid into that account shall be considered as paid in accordance with these rules.

56. We recommend that Government should be approached for sanction of the above rules and their permission secured

to transfer, subject to the consent of the subscribers, the amounts already accumulated in their names to the Provident Fund to be created under these rules.

57. The present ministerial officers and other members of the office-staff who have pensionary claims should have the option of joining the Provident Fund or retaining their pensionary privileges. Those who elect to join the Provident Fund should be credited with the capitalised value of their pension already earned.

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## CHAPTER VI.

### RECOMMENDATIONS FOR TEACHING STAFFS OF DIFFERENT DEPARTMENTS.

#### Arts.

#### ENGLISH.

#### *Statistics.*

Sanctioned Staff according to the recommendation of the Reorganisation Committee, 1925 (p. 45) :

#### *Whole-time Teachers :*

1 Professor and 8 whole-time Lecturers.

#### *Part-time Teachers :* 7.

#### *Actual Staff in 1928-29 :*

#### *Whole-time :*

1 Professor on fixed pay and 7 whole-time Lecturers.

#### *Part-time :*

10, 2 from City College (paid), 1 from Ripon College (paid), 2 from outside (paid), 3 from the Presidency College for whose services the University has entered into a special arrangement with Government and 2 Lecturers whose services have been requisitioned from other Departments.

No. of candidates for M.A. English, 1928 125 (Group A), 3 (Group B)

No. of 5th-year Students ... 143

No. of 6th-year Students ... 99

No. of possible courses of study ... 2

Present total number of lectures per week

according to time-table 5th-year ... 32

6th-year ... 20

*Details of Courses.*—First four papers are common and Paper VIII is an essay paper.

*Analysis of Work actually done by Teachers in English.*

Name of Teacher.	Salary*	According to routine.				Total.	Total work in the last session.	Average per week.
		Different Lectures.	Duplicate lectures (repeated to another section).	Tutorial per week.				
<i>Whole-time.</i>								
	Rs.							
Prof. J. G. Banerjee	750	4	1	1½	6½	165	6½	
N. M. Chatterjee	375	4	1	2	7	200	8	
P. Ganguly	350	4	2	2½	8½	216	8½	
J. C. Ghosh	350	On study leave without pay.						
K. B. Ray	375	3	2	2½	7½	172	7	
S. C. Ray	375	3	1	2½	6½	151	6	
A. K. Sen	350	3	2	2½	7½	156	6½	
P. R. Sen †	350	2	1	2½	5½	138	5½	

Name of Teacher.	Salary.	No. of lectures according to time-table per week.	Tutorials according to routine.	Total work in last session.	
					Rs.
<i>Part-time.</i>					
Prof. H. C. Maitra	...	250	2	...	53
Dr. S. Banerjee	...	...	1	...	32
P. C. Ghosh	...	...	3	...	88
R. K. Guha	...	100	1	...	29
B. G. Mukherjee	...	...	1	...	28
R. N. Ghosh	..	100	1	...	30
R. P. Mookerjee. ‡	...	200	3	2	62
M. M. Bhattacharyya	...	200	2	2	68

58. According to our scheme the necessary lecture work is one and a half hours per week per paper. The maximum provision however should not exceed two hours per week per paper excluding essay. There are ten papers for which provision for lectures should be made. The majority of the Committee are of opinion that if the suggestion of the Board of Higher Studies in English regarding another alternative group is accepted, this

<sup>1</sup> The tutorial hours are obtained from an inspection of the registers and do not take account of the fact that certain tutorials are held conjointly. Compulsory attendance was not enforced. The students did not regularly attend the tutorial classes last year. As an example, in one class with a possible 221 attendances throughout the year there were only 51 actual attendances, i.e., less than 25%. The average attendance was about 45%.

<sup>2</sup> Also lectures in Indian Vernaculars Department.

<sup>3</sup> On leave for part of year. He does not accept his salary which is being funded.

might be carried out in such a way as not to require a total of more than 44 lectures per week. This is based on the assumption that two sections in the fifth-year will not be necessary. The *minority* consider that a larger number will be required.

59. The English Department is the largest one and requires constant supervision. The tutorial work especially demands efficient organisation and control.

60. The Board insisted that more tutorial work was necessary and stated that in their opinion two hours' tutorial work per week per student was desirable. We are not in agreement with this opinion and have already stated that we consider that one hour per week is sufficient. The analysis of work done this year shows that the actual work of the teachers has been less than what would be required of them according to the standard laid down in the present report. The whole-time staff has been calculated on the assumption that eight part-time Lecturers will be immediately appointed. The *majority* consider that on an average ten part-time Lecturers from Colleges might be available. We are of opinion however that while eight part-time Lecturers from Colleges could be immediately appointed, the claims of part-time Lecturers from outside for re-engagement should not be overlooked by the Special Selection Committee. If and when a vacancy occurs in the whole-time staff appointed in accordance with our scheme, we suggest that the number of part-time Lecturers should, if possible, be increased so as to allow of absorption of one vacancy. On the other hand, if at any time the supply of suitable part-time teachers falls below the requirements of the scheme, we consider that whole-time men should be appointed on a temporary basis to meet the requirements.

61. The following staff is in our opinion adequate :

		Salary.	Lectures.	Tutorials.
<i>Whole-time Teachers.</i>		Rs.		
1.	Professor	... 700-50-1,000	4	...
2.	Reader	... 500-50-700	8	4
3.	Do.	... 500-50-700	8	4
4.	Lecturer	... 200-20-500	6	8
5.	Do.	... 200-20-500	6	8
6.	Do.	... 200-20-500	6	8
			38	32
<i>Part-time Teachers.</i>				
7-14.	Eight Part-time Lecturers	800	16	8
			54	40

62. The above staff is more than adequate to cope with the normal work and we are of opinion that when one teacher is away on leave, no acting arrangement will be necessary. If the introduction of an additional alternative group on the basis suggested by the Board of Higher Studies in English should be decided upon, the *majority* do not consider that any increase in the whole-time staff will be required.

63. The *majority* are of opinion that while the demand continues as at present, the number of whole-time teachers including the Professor should be maintained at six. The *majority* feel however that the resources of the Colleges are not being utilised to the fullest extent. While they are not convinced that the Colleges will always be able to supply 4 more part-time Lecturers which would allow immediate further reduction of the whole-time staff, they feel that if the number of students in the Department should decrease, thereby necessitating a reduction of work, one whole-time post might be allowed to lapse when a vacancy arises, and further help might be obtained from the Colleges, if possible. If on the other hand the number should increase, the additional work should be provided for, if possible, by the appointment of part-time teachers from the colleges or temporary lecturers outside the grade as indicated in paragraph 51.

64. The maximum cost of the proposed scheme would be Rs. 4,700 per month as against a maximum cost of Rs. 5,500<sup>1</sup> of the present one.

<sup>1</sup> Including the cost of the eighth whole-time Lecturership which is vacant.

## ECONOMICS.

*Statistics.*

Sanctioned Staff according to the report of the last Reorganisation Committee is as follows :—

(1) 1 Professor. The Reorganisation Committee recommended that on the retirement of the present incumbent, the Professorship should revert to a Lecturership.

(2) 6 whole-time Lecturers in grade.

(3) 1 Lecturer outside the graded service, and

(4) 4 Lecturers from the affiliated Colleges.

*Actual Staff in 1928-29 :*

*Whole-time Teachers excluding the Minto Professor.*—8 (1 Professor on grade ; 5 Lecturers on grade including 1 on leave ; 2 Lecturers on fixed pay).

*Part-time Teachers.*—11<sup>1</sup>: 5 from Colleges (1 Paid from City College, 3 from Presidency College, 1 from Scottish Churches College, temporary), 2 Honorary Lecturers and 4 teachers whose services have been requisitioned from other Departments.

*Alternative Courses allowed with Number of Students taking each Combination.*

Group A	...	...	...	38
Money and Banking	...	...	...	15
Statistics	...	...	...	2
International Trade	...	...	...	14
Mathematical Economics...	...	...	...	7

<sup>1</sup> In the Budget provision has been made for one additional part-time man on Rs. 100 in place of Mr. Panchanandas Mukherjee who is on leave.

Group B	...	...	...	34
International Law	...	...	...	14
Sociology	...	...	...	12
Comparative Politics.	...	...	...	8

No. of M.A. Candidates 1928	...	...	...	61
„ „ students 5th-year	...	...	...	118
„ „ „ 6th-year	...	...	...	73
„ „ lectures per week, 5th-year	...	...	...	14
„ „ „ „ 6th-year	...	...	...	43

## Staff.

• Whole-time.<sup>1</sup>

	Salary.	Time-table work.	No. of Lec- tures in the session.	Average.	Work in Com- merce Depart- ment. Actual up to March 15.	Average per week in Com- merce course.
Prof. P. N. Banerjee	Rs. 1,000	4 <sup>2</sup>	57	2 $\frac{1}{4}$	...	...
„ S. C. Ray	650	8	111	4 $\frac{1}{2}$	...	...
• P. C. Ghosh <sup>2</sup>	375	4	95	3 $\frac{3}{4}$	36	1 $\frac{1}{4}$
Benoy K. Sarkar outside the grade	650	4	92	3 $\frac{3}{4}$	70	2 $\frac{3}{4}$
R. M. Chaudhuri <sup>3</sup>	375	5	101	4	46	1 $\frac{3}{4}$
J. P. Niyogi <sup>3</sup> •	475 (on study leave).					
R. C. Rau <sup>3</sup>	400	3	80	3	114	4 $\frac{1}{2}$
Bejoy K. Sarkar	400	4	110	4 $\frac{1}{2}$	56	2 $\frac{1}{4}$
S. N. Banerjee (outside the grade)	200		48	...	100	4

## Part-time.

• P. N. Sarkar	100	...	...	...	...
N. C. Bhattacharya (from 1st March 1929)	100	...	...	...	...

10 Part-time teachers (without allowances or from other departments • from Presidency College).

• 65. As far as the Economics Department alone is concerned, it is clear that on the basis of work done during the last year there is scope for reduction. Most of the teachers however lecture in the M. A. Commerce and B. Com. Departments and the question of the necessary number of posts is intimately bound up with the requirements of those Departments. Certain teachers

<sup>1</sup> Several of the lecturers were on leave during part of the year.

<sup>2</sup> Excluding seminar work, 1 hr. per week in January only.

<sup>3</sup> Receives an allowance of Rs. 50 per month for B.Com. Teaching.

receive an allowance for their work in the B. Com. Department. It was stated by teachers giving evidence that, owing to the fact that theoretical economists were called upon to deal with the subjects, sufficient emphasis was not given to the practical aspects. The obvious course appears to be to provide adequately for the Economics Department and afterwards to make additions as needed for work in Commerce. The preceding tabular statement shows that the combined work of the teachers in these two Departments, excluding their work in connection with the B. Com. courses, is below the standard recommended by us. The introduction of the tutorial system will however considerably increase the work of the teachers.

66. The following staff appears to be adequate, making an allowance over and above the present scheme and also for the introduction of tutorials. According to the time-table, the number of lectures is 57 per week, including those for two of the optional subjects in each of the groups A and B. Many of these do not apparently run throughout the whole year; for, last year the 8 whole-time members of the staff delivered between them 694 lectures in the Economics Department. If provision is made therefore for 40 lectures per week from the whole-time teachers, the staff will be adequate.

Name of Teacher.	Salary.	Lectures.	Tutorials.
<i>Whole-time Teachers.</i>			
	Rs.		
1. Professor (Minto) <sup>1</sup>	700- $\frac{5}{2}$ -1,000	4	...
2. Reader	500- $\frac{5}{2}$ -700	8	4
3. Do.	500- $\frac{5}{2}$ -700	8	4
4. Lecturer	200-20-500	6	8
5. Do.	200-20-500	6	8
6. Do.	200-20-500	6	8
7. Do.	200-20-500	6	8
<i>Part-time Teachers.</i>			
8-12. Five Part-time Lecturers.	500	10	5
		54	45

We are of opinion that the staff is sufficiently large to allow of work being carried on satisfactorily when one member is away on leave.

67. The maximum cost of the proposed scheme would be Rs. 4,900, as against the maximum cost of Rs. 5,450 for the present staff including the Minto Professor.

<sup>1</sup> The new grade will not affect the present incumbent. This Chair carries a fixed salary of Rs. 1,000 per month and in future appointments may be made on Rs. 1,000.

## COMMERCE.

Sanctioned Scheme according to the Report of the last Re-organisation Committee (p. 58):

- (1) 2 whole-time Lecturers in grade, and
- (2) 4 part-time Lecturers recruited either from the Colleges or outside.

*Statistics.**Actual Staff in 1928-29:*

Whole-time teachers	...	...	1
Part-time teachers	...	...	6
No. of M.A. candidates, 1928	...	...	21
No. of 5th-year students	...	...	20
No. of 6th-year students	...	...	16
No. of hours' lectures per week	5th-year	...	16
"	6th-year	...	28

No. of students in different groups.	5th-Year.	6th-Year.
Statistics	...	3
Agri. Economics	...	7
Auditing	...	13
Ind. Struc. and Development	...	9
Eco. Geography	...	8
Business Organisation	...	9
Currency	...	3
Eco. History	...	2
Eco. Transport	...	10

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table work per week.	Actual in year.	Average per week.
<i>Whole-time.</i>		Rs.		
Dr. H. Sinha	200-25-500	2	45	2
<i>Part-time.</i>				
Dr. R. Pal.	200	4	72	3
S. K. Ghosh	200	3	39	1½
G. Basu	100	4	52	2
S. R. Batliboi	150	3	54	2
S. N. Mukherjee	100	2	44	1¾
M. M. Ray	100	2	20	1

68. Four papers are compulsory and the four optional papers are taken from a list of nine possible subjects. If, therefore, lectures are given in all the nine optional subjects, then thirty-nine lectures per week will have to be given ( $13 \times 1\frac{1}{2} \times 2$ ) on the

basis of  $1\frac{1}{2}$  hours per week per paper per year. Certain of these lectures cover the same ground as is covered by lectures in similar subjects in the Economics course. Most of the witnesses dealing with Economics were of opinion that, as a rule, it was necessary to keep the Economics and Commerce lectures, separate, as the point of view from which the subject was approached as also its scope were different. That the courses of study should be entirely separate does not appear to be borne out by the schemes adopted elsewhere. In the London School of Economics, for example, the teaching in Economics and Commerce is common in several papers. We consider, therefore, that co-operation is possible also here in Calcutta. At least three of the optional papers have a substantial amount of common matter with subjects included in the Economics course. Tutorial work is not required to as great an extent as in the other departments, for in only two of the nine optional groups does the number of students reach ten. Tutorial supervision need, therefore, only be provided in the fifth-year when the compulsory subjects are taken.

69. We do not consider that the decision on the question of the staff needed for the M.A. Commerce course should be complicated by considering possible requirements for B.Com. teaching. The scheme we propose below is for M.A. teaching only.

70. We have proposed a separate teaching staff for the Commerce Department but are of the opinion that, for administrative purposes, the Departments of Economics and Commerce should remain under the control of one Head. There should be a considerable amount of interchange of teachers, and this can only be satisfactorily and economically attained by placing both under the control of one organising authority. This does not exclude the possibility of separate Boards of Studies, if the experts consider such a step to be necessary.

#### *Proposed Staff.*

	Salary. Rs.	Lectures.	Tutorials.
<i>Whole-time Teachers.</i>			
1. Reader	500-50-700	9	4
2. Lecturer	200-20-500	10	2
<i>Part-time Teachers.</i>			
3. Lecturer	200	4	...
4. Do.	200	4	...
5. Do.	150	3	...
6. Do.	100	2	...
7. Do.	100	2	...
		34	6

If it is not possible to obtain competent practical men on Rs. 100, we recommend that the remuneration of the last two be raised to Rs. 150.

71. The above scheme provides for 34 lectures per week and this we consider should allow of the introduction of the two additional optional branches which the Board considered desirable. This is of course contingent upon the proposed new optional branches not being of such a specialised character that none of the whole-time or part-time teachers, appointed according to our scheme, will be able satisfactorily to deal with them. Special steps should be taken for securing practical training in connection with the subjects taught. The Committee are of opinion that, for the present, no increase in the optional subjects is desirable but that attention should be concentrated on the existing subjects specially from the point of view of practical training.

72. The proposals contemplate the appointment of an additional whole-time teacher over and above the staff now attached to the Department. This increase of teaching resources might be effected by adding to the proposed staff of the Economics Department one Lecturer and requiring that Department to provide twelve hours' teaching work, as at present, in the Commerce Department. Several of the witnesses, however, emphasized the need for more practical bias in the Commerce teaching and it might be advisable to appoint the additional teacher specifically for this purpose. This we feel is a question that can only be satisfactorily dealt with by the Special Selection Committee which will be set up.

73. It will be observed that the amount of work that is expected of the part-time teachers in the Department is less than that allotted in other Departments. This is due to the fact that the part-time teachers are professional men not engaged in the teaching profession. It is also anticipated that remuneration on a basis less liberal than that proposed would not be acceptable.

74. The maximum cost of the present staff is Rs. 1,350 per month. The maximum cost of our scheme would be Rs. 1,950 (plus Rs. 100 if the two part-time teachers on Rs. 100 are appointed on Rs. 150 each).

## PHILOSOPHY.

*Statistics.*

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 54) :

- (1) 1 University Professor (excluding the George V Professor of Philosophy).
- (2) 4 whole-time Lecturers in grade.
- (3) 1 whole-time Lecturer outside the graded service.
- (4) 2 part-time Lecturers outside the graded service; these posts are to be sanctioned for not more than two years for the present.
- (5) 5 Lecturers from the Colleges.

*Actual Staff in 1928-29 :*

*Whole-time Teachers.*—7 (including the George V Professor of Philosophy and one Professor on grade).

*Part-time Teachers.*—9 (5 from Colleges—of whom 3 receive salaries, 1 is from the Presidency College and the other is Honorary; the services of 4 teachers have been requisitioned from other Departments).

*Number of Students.*

	5th-Year.	6th-Year.
Total	35	22

*Alternative Courses with Number of Students taking each Combination.*

Theology	15	5
Psychology	4	2
Ethics	9	5
Logic	3	4
Special Branch	4	6
M.A. Candidates, 1928	36	
No. of 5th-Year Lectures and Tutorials	36	
No. of 6th-Year Lectures	18	

## Analysis of Work.

Name of Teachers.	Salary.	Time-table hours per week.	Actual delivered, 1928-29.	Average per week.
	Rs.			
Prof. S. Radhakrishnan	1,000	8 <sup>1</sup>	94	4
Prof. Hiralal Halder	700	6	143	5 $\frac{1}{2}$
S. C. Chatterjee	400	10	207	8 $\frac{1}{2}$
Dr. S. K. Das. (On study leave, rejoined on the 21st February, 1929.)	375	...	44	...
B. B. De	350	9	128	5
Dr. S. K. Maitra	475	10	185	7 $\frac{1}{2}$
Dr. A. K. Guha (outside the grade).	325	6	139	5 $\frac{1}{2}$

*Part-time Teachers.*

Rev. Prof. W. S. Urquhart <sup>1</sup>	100		3	...
Prof. J. R. Banerjee	100	2	53	2
Dr. A. N. Mukherjee	100	4	103	4
B. K. Mallik ( <i>Offg.</i> )	100	...	...	...

6 Lecturers from other Departments or from Presidency College.

75. There are six compulsory papers of which one is an essay paper. Students have the option of choosing one of five groups from which the other two papers may be taken. One of these groups however may include further subdivisions in a special branch of Indian Philosophy. As there are very few students reading some of the groups, the lectures on these groups are of the nature of tutorials. Allowing for lecturing in each group, and in not more than two of the subdivisions, there will be 17 papers for which lectures are required, *i.e.*, 51 lectures per week. At present the time-table shows 59 but the actual total number of lectures delivered in this department by whole-time, part-time and other teachers was 1,396 which gives on our basis of calculation 55 lectures per week.

76. We consider that more co-operation is possible between the Philosophy Department and the Experimental Psychology Department. The majority are of opinion that full provision for lectures in Psychology need not be made in the Philosophy

<sup>1</sup> The number of lectures as shown in the routine refers to the beginning of the session but as lecturers who were on leave returned, the number of lectures in the routine diminished to between 5 and 6 per week.

<sup>2</sup> On leave without pay from 4th August, 1928.

Department and that if for the two papers in Psychology a provision of 3 lectures per week is made in this Department, the balance of the work may be accomplished in the Experimental Psychology Department. We have thus to make provision for 48 lectures per week. We are recommending provision for a total work of 54 lectures per week on the understanding that ordinarily no provision for leave arrangements will be necessary when one lecturer is away on leave.

*Proposed Staff.*

	Salary.	Lectures.	Tutorials.
<i>Whole-time.</i>			
	Rs.		
1. Professor (George V) <sup>1</sup> ...	700- $\frac{50}{3}$ -1,000	4	...
2. Reader ...	500- $\frac{50}{3}$ -700	8	4
3. Do. ...	500- $\frac{50}{3}$ -700	8	4
4. Lecturer ...	200-20-500	8	4
5. Do. ...	200-20-500	8	4
6. Do. ...	200-20-500	8	4
<i>Part-time.</i>			
7-11. Five Part-time Lecturers	500	10	5
		<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
		54	25

77. The maximum cost of the proposed staff will be R 4,400 as against Rs. 4,725 for the present scheme.

<sup>1</sup> The grade proposed will not affect the present incumbent. See foot-note on p. 38.

## PALI.

*Statistics.*

The following staff was sanctioned by the last Reorganisation Committee :

- (1) 3 whole-time men in the graded service to be appointed for a period of 5 years.
- (2) 1 whole-time man outside the graded service for a period of 2 years at present.
- (3) 2 whole-time Assistant Lecturers in grade for a period of 2 years.

*Actual Staff in 1928-29.*

*Whole-time Teachers.*—4 (1 Lecturer in the special grade 500-25-750 with the status of a Professor. 2 Lecturers in grade and 1 Assistant Lecturer).

*Part-time Teachers.*—8 (from other Departments)

No. of candidates for M.A. Pali, 1928 ... 3 (including 1 non-collegiate).

				<i>Number of Students.</i>	
Total	...	...	...	5th-Yr.	6th-Yr.
				6	4

*Alternative Courses allowed with Number of Students*

*taking each Combination*

Group A	...	...	...	3	2
Group B	...	...	...	...	1
Group C	...	...	...	2	1
Group D	...	...	...	1	...

*Analysis of Candidates for the M.A. Examination in Pali in Terms of Groups.**University Students.*

				A.	B.	C.	D.
1923	...	...	...	1	...	2	
1924	...	...	1	...	...	...	
1925	...	...	1	...	2	...	
1926	...	...	...	...	2	...	
1927	...	...	...	...	...	...	
1928	...	...	1	...	1	...	
				<hr/>	<hr/>	<hr/>	<hr/>
				3	1	5	2

*Non-Collegiate Students.*<sup>1</sup>

			A.	B.	C.	D.
1923	...	...	1	...	...	...
1924	...	...	1	...	...	...
1925	...	...	...	...	...	...
1926	...	...	...	...	...	1
1927	...	...	1	...	...	...
1928	...	...	1	...	...	...
			4	...	1	1

Name of Teacher. <sup>2</sup>	Salary.	Lectures (Post- Graduate. Dept.).	Actual No. of Lectures in 1928-29.	Average per week
<i>Whole-time.</i>	Rs.			
Dr. B. M. Barua	600	10	181	7
S. N. Mitter	425	13	277	11
Dr. N. K. Datta	375	On study leave.		
G. C. De	245	13	256	10

No. of possible courses of study—4.

Present total lectures delivered—28 per week, 5th-Year.

—26 ,, ,, 6th-Year.

*Details of Courses.*—First four papers are common and last four are different ; Paper VIII is an essay paper either as a whole or in part.

78. In Pali the number of students is so small that to all intents and purposes the teaching resolves itself into individual tuition. There is obviously no need to arrange complete series of lectures for every group, for more often than not there will be no students reading any save "A" group and possibly one other. When individual students desire to take up any of the other groups, individual help can be given to them by the relevant teachers. On a basis of  $1\frac{1}{2}$  hours per week per paper the number of lectures required for group "A" is  $1\frac{1}{2} \times 7 \times 2 = 21$  lectures per week. Allowing for one or two students reading two other groups each year—this appears to be the maximum attained—the additional lecture work required =  $2 \times 3 \times 1\frac{1}{2} \times 2 = 18$  hours per week. Total work necessary therefore =  $21 \text{ plus } 18 = 39$  hours per week. Some of us feel that the Department should consider the feasibility of

<sup>1</sup> Non-Collegiate Students include University Students who on account of deficiency in attendance appear at the Examination as Non-Collegiate Students.

<sup>2</sup> The staff also lectures in undergraduate classes.

combining certain 5th-Year and 6th-Year classes. A considerable amount of help is received from teachers in other departments. The teachers in this Department also do additional work elsewhere. Our calculations have been made on the assumption that each Department is self-contained and mutual exchange of help between Departments does not affect the calculations. In a subject like Pali where the number of students is small, we feel that it might be desirable to replace certain of the formal lectures by personal guidance. The extent to which this can be done will depend on the individual students and on the subject dealt with. The Board has suggested a new scheme of work but even if this be accepted, the number of lectures given above will be sufficient for preparation for at least four of the seven optional subjects proposed. We consider that the present staff is ample for Post-Graduate work.

79. In view of our previous recommendation urging the necessity for specially providing for research facilities in Oriental Subjects, we feel that the following staff should be engaged which will provide adequate opportunities for research as well as for the discharge of the usual teaching duties.

*Proposed Staff.*

	<i>Whole-time.</i>	<i>Salary.</i>
		Rs.
1.	Reader	... 500- $\frac{50}{2}$ -700
2.	Lecturer	... 200-20-500
3.	Do.	... 200-20-500
<i>Part-time.</i>		
4, 5.	Two Part-time Lecturers	... 200

The two part-time lecturers should not be appointed until the post now occupied by the Assistant Lecturer in the grade 150-15-300 falls vacant. The present Assistant Lecturer should be treated as a Lecturer outside the normal Lecturer's grade but he will continue to remain in the grade 150-15-300.

80. Normally the Department of Pali might be maintained with a Reader as its Head. The present incumbent, however, by reason of his distinguished work, enjoys the title of Professor. We recommend that in the event of his reappointment as Professor being recommended by the Selection Committee, he should retain the status and enjoy the emoluments of a Professor.

81. The maximum cost of the present scheme is Rs. 2,050 and that of the proposed one will be Rs. 1,900 ultimately. The proposed scheme may in the first place entail a maximum cost of Rs. 2,300 during the period of transition.

## PURE MATHEMATICS.

*Statistics.*

Sanctioned Staff (excluding the Hardinge Professor of Mathematics) according to the Report of the last Reorganisation Committee (p. 68):

1. 1 University Professor.
2. 8 whole-time Lecturers, and
3. 1 part-time Lecturer.

*Actual Staff in 1928-29:*

*Whole-time Teachers.*—11 (including the Hardinge Professor of Higher Mathematics).

*Part-time Teacher.*—1 (from Ripon College).

*Number of Students taking different Groups.*

				5th-year.	6th-year.
Numbers	...	...	...	18	9
Real Function	...	...	...	3	3
Complex Function	...	...	...	2	3
N. E. Geometry	...	...	...	5	11
Projective Geometry	...	...	...	9	...
Finite Differences	...	...	...	10	16
Groups	...	...	...	7	6
Quaternions	...	...	...	11	4
			Total	65	52

Candidates for M.A. and M.Sc., 1928	48
No. of lectures per week, 5th-year	35 <sup>1</sup>
"    "    "    "    6th-year	41

<sup>1</sup> About half of these, namely those dealing with the optional subjects, begin in December.

## Analysis of Work.

Name of Teacher.	Salary.	Time-table hours per week.	Actual number including tutorials in 1928-29.	Average per week.
<i>Whole-time.</i>				
	Rs.			
Prof. Ganesh Prasad <sup>1</sup>	1,000	2	17	...
Prof. S. D. Mookerjee	650	5	112	4½
Dr. H. Bagchi	500	8	207	8½
H. P. Banerjee	425	11	287	11½
Dr. I. B. Brahmachari	450	On study leave.		
M. M. Ghosh	375	9	170	6¾
S. M. Ganguly	475	7	187	7½
S. C. Ghosh	425	8	174	7
M. R. Gupta	400	10	267	10¾
N. K. Majumdar	450	8	198	8
P. Ganguly (outside the graded service).	250	5	57	2¾
<i>Part-time.</i>				
A. B. Dutta	100	3	32	1¾

82 The examination consists of six compulsory papers and two papers from an optional group. There were originally six such optional groups according to the Regulations and the number was increased to 8 by the Senate. Recently the number has been increased to 13 and 8 groups are being actually taught. Provision therefore has to be made for instruction in 22 possible papers. Certain of these optional papers will consist of a few students only and it may therefore be assumed that a maximum of 66 lectures per week will suffice for actual lectures on eight groups, as well as for guidance in the subject of other groups, but the majority are of opinion that it is not necessary to provide for lecturing formally in so many groups and that 60 lectures per week would be sufficient. There are 127 students reading in both years and 25 hours' work per week for tutorial work is therefore required.

<sup>1</sup> Was appointed late in year to lecture.

## Proposed Staff.

		Salary.	Lectures.	Tutorials.
<i>Whole-time.</i>		Rs.		
1.	Professor (Hardinge) <sup>1</sup> ...	700- $\frac{5}{2}$ -1,000	4	...
2.	Reader ...	500- $\frac{3}{2}$ -700	8	4
3.	Do. ...	500- $\frac{5}{2}$ -700	8	4
4.	Lecturer ...	200-20-500	8	4
5.	Do. ...	200-20-500	8	4
6.	Do. ...	200-20-500	8	4
7.	Do. ...	200-20-500	8	4
8.	Do. ...	200-20-500	8	4

*Part-time.*

9.	Part-time Lecturer ...	100	2	1
			62	29

83. We feel that in this Department sufficient help has not been taken from the affiliated Colleges and we recommend that when a vacancy arises amongst the Lecturers in the scheme sanctioned above part-time Lecturers should, if possible, be appointed from Colleges. It is also our opinion that the minimum number of whole-time teachers in addition to the Professor should be six.

84. The maximum cost per month of the proposed scheme will be Rs. 5,000 as against Rs. 6,350 of the present scheme.

<sup>1</sup> The grade proposed will not affect the present incumbent. See foot-note on page 38.

ARABIC AND PERSIAN,  
*Statistics.*

Sanctioned Staff according to the Report of the last Reorganisation Committee (pp. 47-48) :

- (1) 2 Whole-time Lecturers in grade.
- (2) 3 Assistant Lecturers in grade.
- (3) 2 Part-time Lecturers from Colleges or from outside.

The desirability of establishing a Chair in addition to the above was recommended for the consideration of Government.

*Actual Staff in 1928-29 :*

*Whole-time Teachers.*—5 (2 Lecturers on grade of whom one has resigned. 3 Assistant Lecturers. In addition to the above, a Professorship—Asutosh Professorship of Islamic Studies—has been sanctioned).

*Part-time Teachers.*—2.

		Arabic.	Persian.
No. of candidates for M.A., 1928	...	5	6
No. of 5th-year students	...	4	2
No. of 6th-year students	...	1	2
No. of 5th-year lectures per week	...	11	13
No. of 6th-year lectures per week	...	11	13

Seven of the 6th-year Arabic lectures are common with the 5th-year Class and all the Persian 6th-year Class lectures are common with the 5th-year Class.

Total separate lectures in Arabic per week	...	15
Total separate lectures in Persian	...	13

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual number of separate lectures delivered during the session.		Average per week.
			Arabic.	Persian.	
<i>Whole-time.</i>					
Dr. A. Suhrawardy <sup>1</sup>	500	6	...	29	1
Aga A. K. Shirazi	475	4	...	107	4½
Maulvi A. M. A. Haque	195	4	199	...	8
„ Md. Ishaque	180	4	...	111	4½
„ Md. Haider	195	4	86	47	5½
<i>Part-time.</i>					
Shamsul-Ulama H. Hossain	100	4	96	...	3¾
Maulvi A. Hadi	100	4	126	22	6

<sup>1</sup> On leave from 1st November, 1928. He has since resigned his appointment.

85. In Arabic there are seven compulsory papers and one essay paper, *i.e.*, a total of 21 lectures is desirable. The classes are however combined and this number is greater than necessary; 15 lectures are actually given at present. In Persian there are seven compulsory papers and one essay paper. Here also the classes are combined and actually 13 lectures are delivered. If not taken jointly, our scheme would indicate provision for 21 lectures as being desirable. The number of students is so small that all the classes are of the nature of tutorial classes and separate provision for tutorial work is not required.

86. Though a smaller number would be sufficient for carrying on work on the present scale, yet, in view of the desirability of specially encouraging Islamic studies and research, we recommend the following staff, which would be adequate to cope with any additional work which may result from the introduction of alternative courses which we consider desirable :

	Salary.	Lectures.
<i>Whole-time Teachers.</i>	Rs.	
1. Asutosh Professor ...	700- $\frac{50}{2}$ -1,000	4
2. Reader ...	500- $\frac{50}{2}$ -700	12
3. Lecturer ...	200-20-500	12
4. Lecturer outside the grade on fixed pay.	200	8
5. Lecturer outside the grade on fixed pay.	200	8
<i>Part-time Teachers.</i>		
6. 2 Part-time Lecturers	200	6
		<hr style="width: 10%; margin: 0 auto;"/> 50

The above scheme provides for the possibility of 50 lectures per week. Actually 28 only are delivered at present. There are however no alternative groups allowed. The above scheme also provides for ordinary leave arrangements.

87. We have received an important note on the development of Islamic Studies from one member of the Committee, Khan Bahadur Aziz-ul-Huq, which is printed in Appendix No. 4. We consider that his proposals should receive the most careful attention from the Board of Higher Studies in Arabic and Persian, the Executive Committee of the Arts Council and the Syndicate.

88. The maximum cost of the scheme recommended by us would be Rs. 2,800 per month, as against the maximum of Rs. 3,100 for the present staff including the Chair of Islamic Studies.

## HISTORY.

89. A very strong case has been made out by the various witnesses who have given evidence that the control of History and Ancient Indian History within one Department is no longer desirable. The subjects have little in common and while there is nothing to gain, there is much to lose by assuming a common jurisdiction. The separation of the Departments will also have the added advantage that it will be possible to estimate the needs of each much more accurately than at present and this, we recommend, should be done. In our analyses we have treated the subjects separately.

## GENERAL HISTORY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 52) :

*General History*—(1) 6 whole-time Lectures in grade,  
(2) 4 part-time Lecturers from the Colleges, and  
(3) 2 part-time Lecturers from outside.

*Actual Staff in 1928-29 :*

*Whole-time Teachers*—6

*Part-time Teachers*—12 (5 from Colleges, 2 outside the grade  
and 5 from other Departments)

Candidates for M.A., 1928	...	...	...	46
Students in 5th-year Class	...	...	...	63
Students in 6th-year Class	...	...	...	49
No. of lectures per week, 5th-year	...	...	...	36
"    "    "    "    6th-year	...	...	...	35

No. of Students in the Different Groups.

		5th-year.	6th-year.
Islamic History	...	5	9
Marathi	...	5	7
Rajput	...	2	2
Sikh	...	10	7
Bengal	...	3	5
China-Japan	...	10	6
Modern Europe	...	12	6
Const. History	...	3	0
Comparative Politics	...	9	6
Anthropology	...	...	1
Economic History	...	4	...
		63	49

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual No. of lectures.	Average per week.
<i>Whole time.</i>		Rs.		
Dr. S. N. Sen	... 475	9	179	7
Dr. H. C. Ray Chaudhuri <sup>1</sup>	475	...	111	4½
T. P. Chakravarti	... 325	9	226	9
I. B. Banerjee	... 400	10	232	9½
S. C. Sarkar	... 250	7	222	9
S. C. Chakravarti	... 400	4	101	4
<i>Part-time.</i>				
S. Khuda Bukhsh	... 200			
M. K. Basu	... 100			
K. Banerjee	... 100			
P. N. Banerjee—on leave without pay (W. C. Wordsworth acting)	... 200			
S. C. Datta	... 100			
U. N. Ghoshal	... ..			
K. Zachariah or R. B. Ramsbotham	... ..			

90. At present six papers including the essay paper are compulsory. The remaining two papers are chosen from five main divisions which are further subdivided into 11 branches. If we assume that two papers from each branch need lecture provision then there will be 27 papers for which lectures are to be provided, *i.e.*, 81 lectures per week require to be delivered. The Board of Higher Studies has, however, recommended an alteration of syllabus which will necessitate lecturing upon 32 papers. Taking into account the actual work done at present by the Board and the schemes suggested by the Board and Sir Jadunath Sarkar (see end of this section), the *majority* of us consider that it will be sufficient if we provide for a total of 54 lectures. This number of lectures provides for the introduction of any of the schemes already mentioned, although not for teaching in every one of the groups.

<sup>1</sup> On leave during part of the year.

It also provides for guidance of students in groups for which lectures have not been arranged.

91. There is in History a considerable amount of assistance available from the Colleges and from the other University Departments. The following staff appears to be adequate for all teaching requirements including tutorials and we recommend accordingly.

*Proposed Staff.*

	Salary.		Lectures.	Tutorials.
<i>Whole-time Teachers.</i>	Rs.			
1. Asutosh Professor ...	700- $\frac{50}{2}$ -1,000	...	4	...
2. Reader	500- $\frac{50}{2}$ -700	...	8	4
3. Do.	500- $\frac{50}{2}$ -700	...	8	4
4. Lecturer ...	200-20-500	...	8	4
5. Do. ...	200-20-500	...	8	4
6. Do. ...	200-20-500	...	8	4
<i>Part-time Teachers.</i>				
7-12. Six Part-time Lecturers	600	...	12	6
			56	26

92. The above staff is sufficient to provide for all ordinary leave arrangements when one member is away on leave.

93. We recommend that the minimum strength of the whole-time staff should be four excluding the Professor. When a vacancy arises in one of the Lecturerships, attempts should be made to provide, if possible, for the work being done by part-time men from the Colleges.

94. The maximum cost of this staff would be Rs. 4,500 per month as against a present maximum expenditure of Rs. 4,700, including the cost of the Asutosh Chair for which proposals are now pending before Government.

*Sir Jadunath Sarkar's Scheme of Distribution of Papers.*

*Compulsory Papers :*

- I. Modern Europe including Britain.
- II. Islamic History.
- III. Mediaeval India (Northern).
- IV. British India—a Select Period.

- V. British Constitutional History.
- VI. Comparative Politics.
- VII and VIII. Alternative Groups :
  - A. Marathi.
  - B. Bengal—A Special Period (intensive study).
  - C. Modern History of the Far East.
  - D. British Colonial History.
  - E. Economic History of India.
  - F. International Law.

*Board's Scheme.*

Paper I. A selected period in the History of Ancient India.

Paper II. A selected period in the History of Mediaeval or Modern India.

Paper III. Constitutional History of England.

Paper IV. A selected period in the History of Modern Europe.

Papers V and VI. One of the following Oriental subjects :—

- (a) Islam outside India and Islamic Culture.
- (b) A Special Period in the History of Bengal.
- (c) History of the Rajputs.
- (d) History of the Sikhs.
- (e) History of the Mahrattas.
- (f) Modern History of the Far East.
- (g) General History of the Ancient East, or such other special subjects as may from time to time be prescribed by the Board of Higher Studies.

Papers VII and VIII. One of the following subjects in Modern History :—

- (a) International Law.
- (b) Comparative Politics.
- (c) Economic History of England and Modern India.
- (d) A Special Period in American History.
- (e) Modern History of a European Country.
- (f) Constitutional History of the British Dominions (including India).
- (g) History of the Modern Labour Movement, or such other special subjects as may from time to time be prescribed by the Board of Higher Studies.

## ANCIENT INDIAN HISTORY AND CULTURE.

Sanctioned Staff according to the Report of the last Reorganisation Committee (p. 52) :

- (1) 7 whole-time Lecturers,
- (2) 3 whole-time Lecturers outside the graded service,
- (3) 1 part-time Lecturer from an affiliated College, and
- (4) 1 Research Assistant.

### *Statistics.*

*Actual Staff in 1928-29 :*

*Whole-time Teachers*—12, including Carmichael Professor. 7 Lecturers on grade, 4 outside grade (3+1 Research Assistant given the status of a Lecturer).

*Part-time Teacher*—1.

No. of Candidates, M.A., 1928	...	...	16
	1926-27.	1927-28.	1928-29.
No. of 5th-year students	22	20	20
No. of 6th-year students	15	12	13
No. of lectures, 5th-year	...	42	} 88
No. of lectures 6th-year	...	46	

### *Distribution of Students in various Groups.*

	5th-year.	6th-year.
Group I-A—Epigraphy, Paleography and Numismatics.	6	4
Group I-B—Fine Arts, Iconography and Ancient Architecture.	6	3
Group II—Social and Constitutional History	6	2
Group III—Religious History	7	2
Group IV—Astronomy and Mathematics	2	1
Group V—Anthropology	3	1

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual No. of lectures in 1928-29.	Average per week.
<i>Whole-time.</i>				
Prof. D. R. Bhandarkar	Rs. 1,250	1	31	1 $\frac{1}{2}$
N. C. Banerjee	... 400	7	275	11
J. N. Banerjee	... 350	12	253	10
Dr. P. Bagchi	... 350	7	119	4 $\frac{1}{2}$
H. C. Chakladar	... 450	17 (com- bined.)	358	14 $\frac{2}{5}$
B. C. Sen	... 300	9	244	10
Dr. K. Nag	... 450	9	201	8
H. C. Ray	... 300	On study leave		
Dr. A. C. Das (outside the Graded Service)	350	7	52	2
Dr. S. Kramrisch (Do.)	350	6	121	5
Pandit B. Misra <sup>1</sup> (Do.)	100	2	41	1 $\frac{3}{5}$
R. Kimura (Do.)	300	2	52	2
<i>Part-time.</i>				
P. C. Sengupta (for Ancient Indian Mathematics)	100	2	89	3 $\frac{1}{2}$

95. The examination consists of four compulsory papers and four optional papers. The optional papers are chosen from one of five groups, one of the groups being subdivided into two alternative courses. This gives on the present scheme 28 papers and assuming teaching provision in all, 84 lectures will be necessary.

96. The following re-grouping has been suggested by the Board of Higher Studies :

Paper I—General History of Pre-Mauryan India (with special reference to conditions described in the Vedic and Epic Literature).

Paper II—Political History of India from the Rise of the Mauryas to the Rise of the Guptas.

Paper III—Political History of India from the Rise of the Guptas to the Muslim Conquest.

Paper IV—Historical Geography of Ancient India.

Paper V to VIII—One of the following Groups :—

(A) Archaeology :

1-2. Epigraphy and Palaeography.

<sup>1</sup> Research Assistant in Ancient Indian Mathematics with status of a Lecturer.

3. Numismatics.
  4. General History of Arts and Iconography.
- (B) Fine Arts and Iconography :
1. Architecture.
  2. Sculpture.
  3. Painting (25 marks) and Comparative History of Art.
  4. Iconography.
- (C) Social and Constitutional History :
1. Social Life.
  2. Economic Life.
  3. Administration.
  4. Ethnology.
- (D) Religious History :
1. Vedic Religion.
  2. Epic and Pauranik Religion.
  3. Buddhism.
  4. Jainism and minor Non-Brahmanical Sects.
- (E) Indian Astronomy and Mathematics :
1. History of Mathematics before Aryabhata with special reference to the Sulva Sutras.
  2. History of Mathematics from Aryabhata and Bakhshali Mathematics to Jaina Mathematics.
- (F) Colonial and Cultural Expansion of Ancient India :
1. Political History of Ancient Indian Colonies.
  2. Hinduism and Buddhism outside India.
  3. Indonesian Art.
  4. Sanskrit and Prakrit Literature outside India.

97. We are of the opinion that no lecture provision need be made for Astronomy and Mathematics although research should be encouraged either in this Department or in the Department of Mathematics or Sanskrit, as the Executive Committee may decide on the report of the Boards. We note that the Board have proposed to omit Anthropology with a view to substituting 'Colonial and Cultural Expansion of Ancient India' and we approve of this.

98. In the opinion of the *majority*, the number<sup>1</sup> of compulsory papers should be increased to five, in which Social and Constitutional History might be included. We recommend that the Board should consider this proposal. As the classes in the optional papers are small, a large amount of tutorial work for these will not be necessary. We recommend also that

<sup>1</sup> The *minority* were of opinion that the number of compulsory papers should remain at 4 and each of the optional groups should consist of four papers.

in their scheme of studies the Board of Higher Studies in Ancient Indian History and Culture should consider the possibility of providing for the study of the "History of Positive Sciences of the Hindus" for which regular lecture provision will not be necessary. Some of us are of the opinion that students, who have not studied Science up to B.Sc. cannot possibly take up such studies advantageously.

99. According to our scheme the number of maximum lectures required would therefore be  $[5 \times 3 + (4 \text{ or } 5) \times 3 \times 3] = 51 \text{ or } 60$ .

One half of one optional paper is an essay which diminishes the teaching requirements to 45 or 54 lectures, although we note that at present lectures are being delivered on the essay paper also.

100. The services of the Bageswari Professor of Fine Arts are not at present in any way utilised for formal teaching purposes. In general it would seem desirable that this should be done. We are aware that, in certain circumstances, the services of the incumbent of the Chair may not even in the future be available for the purposes of regular lecturing. In such an event other arrangements will have to be made, but it will very frequently be the case that the incumbent will be in a position to help considerably in the lecturing work of the University in his subject and, when this is so, every effort should be made to utilise his services in accordance with the conditions already set forth in the rules applicable to this Professorship.

#### *Proposed Staff.*

	Salary.	Lectures.	Tutorials.
	Rs.		
1. Carmichael Professor <sup>1</sup>	700- $\frac{5}{2}$ 0-1,000	4	...
2. Bageswari Professor of Indian Fine Arts.	700- $\frac{5}{2}$ 0-1,000	6	...
3. Reader ...	500- $\frac{5}{2}$ 0-700	8	4
4. Lecturer ...	200-20-500	8	4
5. Do. ...	200-20-500	10	...
6. Do. ...	200-20-500	10	...
7. Do. ...	200-20-500	10	...
8 & 9. 2 Lecturers ... (Part-time or outside the grade).	400	8	...
		64	8

<sup>1</sup> The grade proposed will not affect the present incumbent. See foot-note on page 38.

**101.** If the Bageswari Professor does not participate in the teaching work, a special appointment outside the grade will have to be made to make provision for the necessary lectures. In such an event no extra allowance should be payable from the University funds to this Professor. If his services are not available for formal teaching, we are of opinion that a suitable arrangement might be that of promoting a Lecturer\* to the post of a Reader and making an appointment to a junior post. These arrangements would hold only when the services of the Professor of Fine Arts are not utilised for formal teaching. On the other hand, it might be advisable to make a specialist appointment from outside without re-adjustments within the department. The exact course to be followed should be determined by the Senate according to the personnel available either within or outside the department.

**102.** The above scheme allows of teaching being given in four of the optional groups, even if our suggestion of altering the Regulations so as to provide for five compulsory papers is not adopted.

**103.** The maximum cost of the present staff is Rs. 5,950 and that of the proposed staff, including the Professor of Indian Fine Arts, will be Rs. 5,100.<sup>1</sup>

<sup>1</sup> This sum does not include Rs. 250 which will be additionally needed to meet the cost of the Carmichael Chair so long as the present incumbent holds the Chair.

## COMPARATIVE PHILOLOGY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 66) :

- (1) 1 University Professor.
- (2) 1 whole-time Lecturer (outside the grade).

*Statistics.**Actual Staff :*

Whole-time Teachers ...	...	...	...	2
No. of teachers whose services have been requisitioned from other Departments ...	...	...	...	2
No. of candidates, M.A., 1928 ...	...	...	...	...
No. of 5th-year students ...	...	...	...	2
No. of 6th-year students ...	...	...	...	2
No. of 5th-year lectures ...	...	...	...	9
No. of 6th-year lectures ...	...	...	...	15

*Analysis of Work.*

Name of Teacher.	Salary. Rs.	Time-table hours per week.	Actual No. of lectures in 1928-29.	Average per week.
Professor I. J. S. Taraporewala (on fixed pay).	750	8	250	10
K. C. Chatterjee (on fixed pay) ...	250	6	184	7½

**104.** In the M.A. Examination there are six compulsory papers, one optional paper chosen from two possible subjects and an essay.

The following table shows the number of candidates for the M.A. Examination in Philology during the last 6 years:—

Year.	No. of Candidates.	No. passed.
1923	2	2
1924	1	1
1925	1	1
1926	2	2
1927	...	...
1928	...	...
	6	6

**105.** We consider that Philology should be given a definite and important place in the study of all languages. A wider application of philological principles to the study of the numerous Indian languages has great possibilities and we recommend for the consideration of the relevant bodies that there should be one compulsory paper on Philology in each M.A. language course. For this paper there might be common lectures on general philological principles and in addition lectures in each department on the special application of those principles to the particular language. We consider that the main purposes of the Philology Department under present conditions in this University should be that of an auxiliary to the study of the different languages. In addition to this, the department should train students for the M.A. Degree in Comparative Philology, but admission should be restricted to those who have taken an M.A. or an Honours Degree in a language.

**06.** We recommend the following staff :

<i>Proposed Staff.</i>			
			Salary.
			Rs.
1. Professor	*	...	700- $\frac{5}{2}$ -1,000
2. Lecturer	...	...	200-20-500

**107:** At present we do not recommend that the Professorship should be replaced by a Readership, but we consider that when the services of the present Professor are no longer available, the question of such replacement should be considered by the Senate with reference to the situation as it will then exist. This means that if the present incumbent is re-appointed on the recommendation of the Selection Committee for this Professorship, he will retain the position and enjoy the emoluments of a Professor.

**\* 108.** It is to be distinctly understood that our recommendations for converting the non-graded posts into graded ones are contingent upon the acceptance of the scheme for a wider application of philological teaching to the study of the individual languages.

**109.** The maximum cost of the proposed staff is Rs. 1,500 as against Rs. 1,000 of the present staff.

## SANSKRIT.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 60) :

- (1) 8 whole-time Lecturers in grade.
- (2) 4 Lecturers outside the grade.
- (3) 3 part-time Lecturers from the Colleges.

## Statistics.

Actual Staff in 1928-29 :

Whole-time Teachers (excluding Asu- tosh Professor).	12	(7 on grade, 5 out- side the grade).
Part-time Teachers	2	from Colleges.
Services requisitioned from other Departments.	7	
No. of students in the 5th-year Class	14	
No. of students in the 6th-year Class	7	
No. of Lectures, 5th-year	74	
No. of Lectures, 6th-year	54	

*Analysis of Students appearing at M.A. Examinations in  
Sanskrit in the Different Groups.*

## University Students.

	A.	B.	C.	D.	E.	F.	G.	H.	I.
1922 ...	8	2	1	1	2	1	...	1	2
1923 ...	...	1	...	...	...	1	...	...	2
1924 ...	6	1	2	1	...	1	...	1	2
1925 ...	3	2	...	2	1	1	...	1	4
1926 ...	3	1	1	1	1	1	...	...	3
1927 ...	6	...	...	1	1	1	...	...	1
1928 ...	7	1	...	1	...	...	1	...	...

Non-Collegiate Students.<sup>1</sup>

	A.	B.	C.	D.	E.	F.	G.	H.	I.
1922 ...	...	...	...	1	1	...	1	1	...
1923 ...	1	...	...	...	2	...	...	...	...
1924 ...	2	...	...	...	...	...	...	...	...
1925 ...	2	...	1	...	1	...	...	...	2
1926 ...	...	...	...	2	1	...	...	1	2
1927 ...	1	1	...	...	2	...	...	...	...
1928 ...	2	...	...	1	3	...	...	1	...

<sup>1</sup> Non-Collegiate Students include University students who on account of deficiency in attendance appear at the examination as Non-Collegiate Students.

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual No. of lectures in 1928-29, last year.	Average per week.
<i>Whole-time.</i>		Rs.		
Kokileswar Sastri ...	500	10	248	10
Dr. P. C. Chakrabarti ...	425	10	207	8
Dr. N. P. Chakravarti ...	400	6	86	3½ (On leave from 20-3-29).
S. K. Mukherjee ...	300	10	240	9½
Dr. Amarendra Thakur ...	400	9	169	6½
MM. Sitaram Sastri ...	350	9	172	7
MM. Anantakrishna Sastri	375	7	157	6½
Haragovinda Das Seth (Out- side the graded service)	250	7	82	3½
Panchanan Tarkabagis (Do.)	150	14	326	13
MM. Krishnacharan Tarkabagis kalankar (Do.) ...	175	6	141	5½
MM. Gufucharan Tarkadarsantirtha (Do.) ...	200	8	168	6½
Muralidhar Banerjee (Do.)	200	6	123	5
<i>Part-time.</i>				
Debendranath Ray ...	50	2	46	1¼
Sakalnarin Sarma ...	50	2	46	1¼
Total number of lectures delivered by teachers from other Departments ...	...	...	...	182

**110.** There are three compulsory papers and one essay. The remaining four papers may be taken from nine possible

alternative groups. The table shows the distribution of the students, who have appeared at the M.A. Examination, amongst these groups, during the last seven years. Teaching during 1928-29 was imparted in eight of the nine groups in the fifth-year and in five groups in the sixth-year; the staff appears to have been appointed with a view to undertaking teaching in all nine groups. The *majority* of us do not feel that such provision is necessary. There are certain groups, provision for the teaching of which seems to be to a certain extent made in other Departments, for example, Group I—Epigraphy and History (Ancient History Department), Group G—General Philosophy (Philosophy Department) and Group H (Pali Department), although this does not necessarily mean that duplicate teachers are provided for all of these subjects. Some groups are so little in demand that individual guidance rather than formal teaching would satisfactorily serve as a method of approach to the subject. With a view to ensuring wider fundamental knowledge and better general culture, the *majority* are of opinion that the number of compulsory papers should be five including the essay, and that the optional groups should each have three papers out of the subjects covered by the existing nine groups. We recommend that the Board should consider this proposal. We realise, however, the necessity for encouraging study and research in Sanskrit and the *majority* consider that if the staff, as proposed below, is provided, it would be possible to arrange for adequate instruction in at least five groups, while ensuring the necessary elasticity for possible changes from year to year. It would at the same time give ample opportunities for research and for the establishment of a centre of Sanskrit learning in Calcutta.

If it is assumed that teaching will be provided in five groups,—and this is more than necessary if the lectures in other departments are utilised,—then there will be 19 papers for which lectures will be necessary. The number of lectures necessary would be 57 or 76 according as the normal or maximum provision per paper is adopted. As the work is much more individual than in most Departments, the lower scale should be ample, but the witnesses pressed for the necessity of a larger number of lectures in Sanskrit. The scheme suggested covers all these requirements. Groups for which formal teaching is not provided in this department could be taken up, and students allowed to attend lectures, as suggested above, in other Departments or given individual guidance in their own Department.

Proposed Staff.<sup>1</sup>

		Salary.	Lectures.
<i>Part-time.</i>		Rs.	
1.	Professor (Asutosh Professor)	... 700- $\frac{50}{2}$ -1,000	4
2.	Reader	... 500- $\frac{50}{2}$ -700	10
3.	Do.	... 500- $\frac{50}{2}$ -700	10
4.	Lecturer	... 200-20-500	10
5.	Do.	... 200-20-500	10
6.	Do.	... 200-20-500	10
7.	Lecturer <sup>2</sup> outside the grade on fixed pay	200	10
8.	Do. <sup>2</sup>	... 200	10
<i>Part-time.</i>			
9-10	Two Part-time Lecturers	... 200	6
			80

111. We consider that if at any time it is decided to increase the scope of teaching, the resources of the Colleges and Tols should, if possible, be drawn upon and more part-time teachers engaged. Of the 8 whole-time teachers 7 should be regarded as the minimum number. The staff is ordinarily sufficiently large to allow of the necessary work being effected, when one member is on leave, without making any temporary appointment.

112. The maximum cost of the proposed scheme would be Rs. 4,500 per month as against a maximum cost of Rs. 6,075<sup>3</sup> of the present scheme, including the cost of the Asutosh Chair.

<sup>1</sup> The minority are of opinion that there should be at least another Lecturer outside the grade.

<sup>2</sup> It is intended that these Lecturers should be from the Tols.

<sup>3</sup> Includes the cost of the eighth Lecturership which is vacant.

## INDIAN VERNACULARS.

Sanctioned Staff according to the Report of the last Reorganisation Committee (p. 64) :

- (1) 1 Lecturer who was given the status of Professor but not the corresponding scale of pay.
- (2) 6 other whole-time Lecturers outside the graded service including the holders of Endowed Chairs.
- (3) 11 part-time Lecturers whose services might be requisitioned from other departments of the University or from the affiliated colleges in Calcutta or from outside.

*Statistics.*

*Actual Staff* in 1928-29 : 19.

Salaries are as follows :

3 (200), 1 (175), 1 (100), 13 (50), 1 (25).

Most of them are University teachers working in other Departments or occupying Endowed Posts.

No. of students, 5th-year	...	23
No. of students, 6th-year	...	14
No. of M.A. students, 1928	...	28
No. of lectures per week, 5th-year	...	47
Do. 6th-year	...	48

*Number of Students, Group by Group.*

	5th-year.	6th-year.
Oriya	...	2
Maithili	...	7
Tamil	...	1
Telugu	...	1
Persian	...	1
Malayalam	...	1
Marathi	...	1
Gujrathi	...	1
Sinhalese	...	1
Urdu	...	1
Hindi	...	4
Assamese	...	3
Bengali	...	1

**113.** Candidates are at present examined in five papers in one principal subject (which may be Bengali, Hindi, Oriya or Maithili), two papers in a subsidiary language (Bengali, Assamese, Oriya, Marathi, Hindi, Gujrathi, Urdu, Tamil, Telugu, Malayalam, Kanarese, Sinhalese or Maithili) and one paper in two basic languages (Prakrit, Pali, Persian or Pushtu).

**114.** The evidence which was submitted to us showed conclusively that the Department of Indian Vernaculars is in need of considerable reorganisation. Witnesses, without exception, were of the opinion that the standard attained in many of the subsidiary languages was not in accordance with that which should be demanded in an M.A. Examination. This is borne out by the examination results for the last 6 years. 125 candidates appeared for the M.A. Examination, of whom no less than 119 passed, and 54 of these obtained first class. This is not entirely attributable to the greater ability of the students of the Indian Vernaculars Department and the inference is inevitable that the standard must be raised if the value of the degree is to be commensurate with that in other Departments. We consider that this low standard was almost certainly due to the multiplication of subsidiary subjects and in many cases to the reliance placed upon teachers who were not specially trained to teach those subjects. An analysis of the principal languages taken by the students shows, as might have been expected, that Bengali is taken by a large majority of students. We consider that the Department should essentially be one of Bengali. We do not desire, however, to neglect the interests of other Indian languages with which Bengali can be considered to have an intimate relationship. We also feel that greater stress should be laid on the principal Vernacular chosen and that the Board should consider the desirability of altering the courses of studies and the question of re-distribution of papers with that end in view. We recommend the following scheme for the consideration of the Board.

**115.** The principal languages should be Bengali and Hindi, and the subsidiary languages should be limited to those which have a reasonably close connection with these two Vernaculars. We do not desire to debar any student from studying an Oriental language other than that for which teaching provision is made in the University. We consider that it is in accordance with the general scheme of Post-Graduate studies that the list of subsidiary subjects should include some for which no teaching arrangements are made. Any student having a particular interest

in one of those subjects should, with the permission of the Head of the Department, be allowed to take it in the examination as a subsidiary subject. We do not think the University is at present called upon to provide teaching in any save, the following subsidiary languages: Bēngali, Assamese, Oriya, Hindi, Urdu and Maithili. For these languages, if there is no qualified teacher already on the staff of the other Departments, special teachers should be engaged. Our scheme will, therefore, provide for teaching in two principal languages, six subsidiary languages and the three basic languages: Pali, Prakrit and Persian. We suggest that a student desiring to take up a subsidiary language, other than those enumerated, should apply to the Board of Studies which would have power to sanction his appearance at the examination on the recommendation of the Head of the Department without his having attended lectures. We are strongly of opinion that in such an event the examination should be conducted by recognised authorities on the particular subject outside the University.

**116.** We desire that the Department of Indian Vernaculars should be well-organised and that the various resources of the University, provided for under different Endowments and Trusts, should be consolidated so as to ensure an effective scheme. We recommend that the Ramtanu Lahiri Fellowship should be raised into a Professorship, the cost for which will be met from the Ramtanu Lahiri Research Fund. After the necessary charges entailed upon the Trust Funds have been met, the surplus should be utilised for meeting the expenses of the Indian Vernaculars Department. We recommend that the Syndicate should take steps to alter the duties of the Ramtanu Lahiri Research Fellow so as to bring him into closer touch with the Indian Vernaculars Department. We also suggest that the Khaira Professor of Indian Linguistics should be brought within the scheme of this Department. The following would, we believe, ensure satisfactory control and organisation in the future:

*Whole-time Teachers.*

	Rs.
1. Ramtanu Lahiri Professor of Bengali	700- $\frac{50}{2}$ -1,000
2. Professor of Indian Linguistics (Khaira Fund).	700- $\frac{50}{2}$ -1,000
3. Lecturer in Bengali	200-20-500
4. Lecturer in Hindi (outside the grade)	200
5. Lecturer in Bengali (outside the grade)	200

*Part-time Teachers.*

6. Lecturer in Bengali (from college or outside)	100
7. Lecturer in Oriya (Endowed) <sup>1</sup> ... ..	150
8. Lecturer in Maithili ... ..	100
9. Part-time Lecturer in Assamese ... ..	100

On a vacancy arising in the post of the Lecturer in Bengali (outside the grade) the Selection Committee should be asked to report upon the possibility of replacing it by two part-time lectureships.

**117.** Lectures in Pali, Urdu, Persian and Prakrit should be provided for, if necessary, from other Departments. The question as to whether additional payment for these lectures will be made should be decided in accordance with the principles laid down previously.

**118.** We consider also that research in Bengali should be encouraged and that there should be established two Research Scholarships, the holders of which would assist the Professor as well as pursue their own investigations. These Research Scholarships would be of the value of Rs. 150 a month. We also recommend continuance of the Research Assistantship on Rs. 125 at present maintained from the Ramtanu Lahiri Scholarship Fund.

**119.** The maximum cost will be Rs. 3,975 as detailed below :-

	Rs.
2 Professors ... ..	2,000
3 Lecturers (one on grade and two on fixed pay)	900
4 Part-time Lecturers ... ..	450
Approximate allowance for teachers in Pali, Persian, etc., for subsidiary (subjects) ... ..	
Research Scholar ... ..	300
Research Assistants ... ..	125
	3,975

Of this we expect that approximately Rs. 2,000 per month will be available from the following Endowments :—Khaira, Ramtanu Lahiri, Hindi and Oriya Lectureship Funds. The cost of the present scheme is Rs. 1,600.

**120.** We recommend further that from time to time the University should favourably consider applications for special grants for collection of manuscripts.

<sup>1</sup> This may be a whole-time appointment.

## ANTHROPOLOGY.

Sanctioned Staff according to the Report of the last Reorganisation Committee (p. 70):

- (1) 2 whole-time Lecturers in grade, one to be in charge of the Department,
- (2) 2 Lecturers for one year to be placed outside the graded service,
- (3) 2 Assistant Lecturers, and
- (4) 2 part-time Lecturers outside the grade.

*Statistics.*

*Whole-time Teachers*—6 (2 Lecturers on grade, 2 Lecturers outside the grade, and 2 Assistant Lecturers.

No. of M.A. students, 1928	...	6
No. of 5th-year students	...	7
No. of 6th-year students	...	5
No. of 5th-year Lectures	...	16 <i>plus</i> 2 hours' practical.
No. of 6th-year Lectures	...	21 <i>plus</i> 9 hours' practical.

*Alternative Courses allowed with Number of Students taking each Combination.*

Group A	...	...	3
Group B	...	...	1
Group C	...	...	1

*Number of Students appearing at the M.A. Examination.*

		Appeared.	Passed.
1923	...	5	4
1924	...	4	3
1925	...	1	...
1926	...	5	5
1927	...	3	3
1928	...	6	6

*Analysis of Work.*<sup>1</sup>

Name of Teacher.	Salary. Rs.	Time-table hours per week.	Actual No. delivered in 1928-29.	Average per week.
Rai Bahadur J. K. A. Iyer ...	450	7	125	5
Panchanan Mitra ...	450	8	95	3 $\frac{1}{2}$
T. C. Das ...	225	8	95	3 $\frac{1}{2}$
T. C. Raychaudhuri ...	195	8	162	6 $\frac{1}{2}$
A. N. Chatterjee ...	300	6	146	6
B. C. Majumdar *	300	3	62	2 $\frac{1}{2}$

**121.** The time-table hours include practical and seminar work. Candidates take six papers and a two-days practical examination. Of the six papers four are compulsory, and the other two are taken from one of three groups. There are thus ten papers for which lecture provision has to be made; 30 or 40 lectures per week will therefore be necessary according as to whether the normal or maximum lecture provision recommended by us is adopted. In addition seven hours' practical work is given.

**122.** Anthropology is, we feel, an increasingly important subject and in view of the original contributions it can make towards the study and advance of knowledge of the diverse Races in India, we recommend that it should be maintained and developed on an efficient basis. It is essential therefore that members of the staff should be trained in modern methods of research and should have an intimate acquaintance with modern developments. Such a staff should be given every facility for advancing the study of Anthropology with special reference to India. For the present a Reader with these qualifications should be appointed as Head of the Department and, failing the possibility of obtaining such a man, the University should take steps to give the requisite training either to one of its teachers or to one of its graduates. We contemplate that eventually it will be necessary to have a Professor in this Department.

<sup>1</sup> The Lecturers work in undergraduate classes also.

<sup>2</sup> This post has been abolished since 1st June, 1929.

123. We recommend the following staff<sup>1</sup>:

	Lectures.	Practical.
<i>Whole-time.</i>		
1. Reader (500-50-2-700)	... 8	...
2. Lecturer (200-20-500)	... 10	4
3. Lecturer (200-20-500)	... 8	6
4. Assistant Lecturer (150-15-300)	... 4	14
	30	24
<i>Part-time.</i>		
5-6. At least one and not more than two part-time Lecturers from outside (300).	6	
	36	

The above scheme provides for slightly less than the maximum lecture work previously indicated but for considerably training more practical work. We consider that the practical given should be more extensive than at present. Co-operation is possible with the Departments of Zoology, Physiology and Ancient Indian History and Culture and this should be effected. There should also be a greater co-operation with the Departments of Anatomy of the Medical Colleges and with the Indian Museum.

124. The maximum cost of this scheme would be Rs. 2,300 per month as against a maximum cost of Rs. 2,200 per month of the present staff.

125. The majority were of opinion that, although Anthropology is mainly a Science subject, for practical convenience it should remain under the control of the Arts Executive Committee.

<sup>1</sup> The additional staff which will be required to provide for undergraduate teaching is indicated on pages 127-28.

## Science.

## APPLIED MATHEMATICS.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 82) :

- (1) 1 Professor (Ghose Trust).
- (2) 2 whole-time Lecturers in the graded service,
- (3) 5 part-time Lecturers.

## Statistics.

## Actual Staff in 1928-29 :

Whole-time Teachers ...	3	
Part-time Teachers ...	5	(two are on leave and two are officiating in their place).
Candidates for M.A., and M.Sc., 1928	30	
No. of 5th-Year students	44	
No. of 6th-Year students	21	
No. of 5th-Year lectures	17	
No. of 6th-Year lectures	20	

## Analysis of Work.

Name of Teacher.	Salary.	lectures.	lectures.	Average.
<i>Whole-time.</i>	Rs.			
Prof. N. R. Sen ...	750	5	119	5
Dr. B. B. Dutta (on leave).	475	6	140	5½
Dr. S. Ghosh ( <i>Offg.</i> )	200	...	...	...
Dr. N. N. Sen ...	425	11	205	8
<i>Part-time:</i>				
Dr. Sitieschandra Kar	150	4	76	3
S. P. Das ...		2	15 (on leave... from 19-11-28)	
B. M. Sen ...		On leave.		
N. C. Ghosh ( <i>Offg.</i> )	...	2	48	2
H. C. Sengupta	...	2	64	2½
B. C. Das ...	...	3	90	3½
J. M. Bose (Hony.).		...	...	...

126. There are six compulsory papers and two optional papers taken from one of six groups, giving 18 papers in all. At present teaching is provided in all the groups except one (Lunar and Planetary Theory) and the total number of lectures per week is 37. The Board in their evidence stated that at least two additional lecturers were required. The Professor in his evidence stated that at least two lecturers, one whole-time and another part-time, were necessary. We do not feel however that an increase of two whole-time lecturers is justified in view of the figures given in the analysis of work done and the lectures to be provided for. After considering the amount of work that requires to be done, we recommend the scheme detailed below. We feel that provision for formal teaching for five out of the six optional groups is adequate and that the maintenance of the present scheme of work can satisfactorily be ensured by the following staff :

*Proposed Staff.*

	{Salary.	Lectures.	Tutorials.
<i>Whole-time.</i>	Rs.		
1. Ghose Professor	700- $\frac{50}{2}$ -1,000	4	...
2. Reader ...	500- $\frac{50}{2}$ -700	8	4
3. Lecturer ...	200-20-500	8	4
4. Do. ...	200-20-500	10	...
<i>Part-time.</i>			
5-10. Six part-time Lecturers	600	12	6
		<hr/> 42	<hr/> 14

The above staff is not sufficiently large to provide for leave emergencies except in the case of part-time teachers and we consider that in the event of one whole-time teacher going on leave the work of the Department should, if possible, be carried on by temporary appointments from the affiliated Colleges or outside together with a re-arrangement of work within the Department.

127. The maximum cost of the Department on the above scheme would be Rs. 3,300 per month as against Rs. 1,900 on the present scheme. Of this Rs. 500 is payable from the Trust Fund.

## PHYSICS (PURE AND APPLIED).

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 83) :

- (1) 4 Professors. (All endowed Professorships—one Palit Professor, one Ghose Professor, one Khaira Professor for Pure Physics, one Ghose Professor for Applied Physics.)
- (2) 5 University Lecturers on the regular grade.
- (3) 4 part-time Lecturers from the Colleges.
- (4) 1 Demonstrator on the grade of Assistant Lecturer.

*Statistics.**Actual Staff:*

Whole-time Teachers	...	4 Professors (Endowed), 5 Lecturers on grade, 1 Assistant Lecturer or grade.
Part-time Teachers	...	4 (from Presidency College).
No. of M.Sc. candidates, 1928	72	(Applied 6).

	Pure.	Applied.
No. of 5th-year students	48	6
„ „ 6th-year „	44	5

*Analysis of Work.<sup>1</sup>*

Name of Teacher.	Salary.	Actual No. of lectures in 1928-29
<i>Whole-time.</i>		
1. Professor C. V. Raman	1,125	30
2. „ D. M. Bose	750	50
3. „ P. N. Ghosh	750	132
4. „ S. K. Mitra	750	28
5. B. B. Ray	450	45
6. S. K. Acharji	425	81
7. B. N. Chakravarti	425	20
8. D. D. Banerjee	300	26
9. J. C. Mukherjee	425	35
10. P. C. Mahanti	165	53
		<u>500</u>
<i>Part-time.</i>		
1. P. C. Mahalanobis	...	87
2. Dr. S. Dutt	...	42
3. D. K. Majumdar	...	39
4. C. C. Bhattacharyya	...	39
		<u>207</u>

<sup>1</sup> Some members were on leave during part of the year.

**128.** The practical work has not been shown in the statement given above. There are two courses, one in Pure and the other in Applied Physics. In the Pure Physics course there are four compulsory theoretical papers with one optional paper taken from a list of eight possible subjects which under the Regulations may be added to or modified by the Board. In 1928-29 four, and in 1929-30 five, optional subjects were taught. The course in Applied Physics is wholly compulsory. In estimating the requirements we have taken into consideration the number of lectures found to be necessary according to the arrangements made and also the number of lectures actually delivered. Obviously we have further to take into account the work in the laboratory, including supervision and the specialised nature of some of the branches of the subject.

**129.** In Pure Physics, we find that the Board fixed upon 515 lectures as the minimum required for the session. Of these 235 lectures were to be delivered by the part-time teachers. The whole-time teachers in Pure Physics have also to deliver about 110 lectures in Applied Physics. To this number should be added 185 lectures which were actually delivered by the two Applied Physics teachers. Thus the whole-time teachers have to deliver  $280 \text{ plus } 110 \text{ plus } 185 = 575$  lectures. These include 25 additional lectures required under the new syllabus. The actual number of lectures delivered in the session, 1928-29, by the whole-time teachers was about 500. On the basis of calculation adopted by us, therefore, the number of lectures required to be delivered per week by both Pure and Applied teachers (whole-time) is 23.

**130.** There is of course practical work to arrange for in addition to the above and this constitutes the greater part of the necessary teaching work. It seems desirable to appoint an adequate number of senior or experienced teachers for lecture work and supervision of laboratory work, and also a certain number of Assistant Lecturers to aid in practical work.

**131.** The figures given for the number of students in the 5th and 6th-year Classes include Presidency College students who only attend the Science College Laboratories for a few experiments in some special branches. There are Science College students for whom provision for practical work is necessary. The University Regulations require that one teacher

should be in attendance for each batch of ten students. The students work for periods of four hours per day in the laboratories (excluding Saturdays and Sundays). The maximum number of students admitted is 60 and the number of casual students (i.e. failed students attending for part of the year only) is about 10. We consider that if provision be made for the attendance of six members of the staff during each of these periods, supervision will be adequate.

The scheme therefore requires supervision of a minimum of 100 hours' practical work in addition to lecture work.

**132.** We recommend the following staff for the work in Applied Physics :

	Lectures.	Practical work.
1. Professor (Ghose)	3	6
2. Lecturer (200-20-500)	3	12
3. Asst. Lecturer (150-15-300)	1	16
	<hr/>	<hr/>
	7	34

**133.** We consider that this Lecturer in Applied Physics should have the necessary special qualification for work in this Department. A portion of the work of the Applied Physics students is carried out at the Sibpore Engineering College by mutual arrangement. We are of opinion that this should continue.

**134.** We recommend the following staff for the Pure Physics Department :

	Lectures.	Practical.
1. Professor (Palit) (700-50-1,000)	3	...
2. Professor (Ghose) (Do.)	3	6
3. Professor (Khaira) (Do.)	3	6
4. Lecturer (200-20-500)	3	12
5. Do. (200-20-500)	3	12
6. Do. (200-20-500)	3	12
7. Do. (200-20-500)	3	12
8. Asst. Lecturer (150-15-300)	1	16
	<hr/>	<hr/>
	22	76
9-12. Four Part-time Lecturers (400)	8	...
	<hr/>	
	30	

As soon as the first vacancy arises amongst the four Lecturers, he should be replaced by an Assistant Lecturer.

Thereafter, if and when one further vacancy arises, the University should consult the Head of the Department as to the possibility and desirability of replacing this lecturer by one or more Assistant Lecturers. The maximum possible cost of the proposed scheme is Rs. 7,500 as against Rs. 6,175 of the present scheme. Of this Rs. 2,625 is contributed by the Trust Funds.

## CHEMISTRY (PURE AND APPLIED).

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 84) :

- Pure Chemistry : (1) 3 Professors (All endowed Chairs, one Palit Professor, one Ghose Professor, one Khaira Professor),  
 (2) 4 whole-time University Lecturers,  
 (3) 4 part-time Lecturers attached to the staff of the Presidency College,  
 (4) 1 Honorary Lecturer who is the Industrial Chemist to the Government of Bengal.
- Applied Chemistry : (1) 1 University Professor (Ghose Professor).  
 (2) 1 Demonstrator.

*Statistics.**Actual Staff :*

Whole-time Teachers for both Pure and Applied	...	10 : (4 Professors (Endowed), 5 Lecturers, 1 Asst. Lecturer).
Part-time Teachers	...	6 from Presidency College.
No. of M.Sc. candidates, 1928	...	41

	Pure.	Applied.
No. of 5th-year students	38	14
No. of 6th-year students	31	14
No. of 5th-year lectures	12 <sup>1</sup>	...
No. of 6th-year lectures	19 <sup>1</sup>	...

<sup>1</sup> One lecture common to both 5th and 6th-years making 30 in all.

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table lectures.	Actual lectures in year.	Average.
<i>Whole-time.</i>				
	Rs.			
Sir P. C. Ray <sup>1</sup>	... 1,000	...	...	...
Prof. P. C. Mitter	... 750	1	45 <sup>2</sup>	2
Prof. H. K. Sen	... 750	2 <sup>o</sup>	68	2 $\frac{3}{4}$
Prof. J. N. Mukherjee	... 750	3	63	2 $\frac{1}{2}$
P. R. Ray <sup>3</sup> (on leave)	... 425	2	10	...
Dr. P. B. Sarkar <sup>3</sup>	... 400	3	59	2 $\frac{1}{4}$
Dr. M. N. Goswami <sup>4</sup>	... 350	4	81	3 $\frac{1}{4}$
B. C. Ray <sup>4</sup>	... 250	5	83	3 $\frac{1}{4}$
Dr. P. K. Bose <sup>5</sup>	... 250	2	38	1 $\frac{1}{2}$
K. K. Kumar <sup>6</sup>	... 225	2	45	2
<i>Part-time.</i>				
R. N. Sen	...	1	25	1
P. Neogi	...	1	...	...
B. B. Datta	...	1	8	...
A. Maitra	...	1	26	1
A. C. Sarkar	...	1	21	1
N. G. Chakravarti	...	1	23	1

**135.** The course in Pure Chemistry is divided into three groups, namely, Inorganic, Organic and Physical. Teaching for these three groups involves preparation for nine separate papers in addition to practical work. The present time-table provides for 19 lectures per week in Pure Chemistry. A new routine has been adopted which provides for additional lectures for Special papers. This will mean about 25 lectures per week in Pure Chemistry. Of these the part-time Lecturers deliver six per week. There is, as in Physics, practical work to arrange for in addition to the above and this constitutes the greater part of

<sup>1</sup> Does not accept salary which is being funded.

<sup>2</sup> This includes 11 lectures in Applied Chemistry which is not mentioned in the time-table.

<sup>3</sup> Lecturer in Inorganic Chemistry.

<sup>4</sup> Lecturer in Applied Chemistry.

<sup>5</sup> Lecturer in Organic Chemistry.

<sup>6</sup> Assistant Lecturer in Physical Chemistry, who has been given the status of a Lecturer.

the necessary teaching work. It seems desirable to appoint an adequate number of senior or experienced teachers for lecture work and for supervision of laboratory work and a certain number of Assistant Lecturers to aid in practical work. The present staff for Pure Chemistry is three Professors and three Lecturers. It is clear that at present the supervision of practical work is not being done in accordance with the Regulations.

**136.** In order to provide adequately for lectures and practical work in this Department, we consider that it is desirable to have a Professor, Lecturer and Assistant Lecturer in each of the three branches. At the present time there are two Lecturers in Inorganic and one in Organic Chemistry. When the services of the Professor of Inorganic Chemistry are available for lecturing and when a vacancy arises in the lectureship, one of these Lecturers in Inorganic Chemistry should be replaced by a Lecturer in Physical Chemistry. So long as there are two Lecturers in Inorganic Chemistry there should be two Assistant Lecturers in Physical Chemistry.

**137.** We recommend the following staff for Pure Chemistry :

	Rs.	Lectures.	Practical.
1. Professor (Palit)	700- <del>50</del> -1,000	3	...
2. Professor (Ghose)	700- <del>50</del> -1,000	3	6
3. Professor (Khaira)	700- <del>50</del> -1,000	3	6
4. Lecturers	200-20-500	3	12
5. Ditto	200-20-500	3	12
6. Ditto	200-20-500	3	12
7. Assistant Lecturers	150-15-300	1	16
8. Ditto	150-15-300	1	16
9. Ditto	150-15-300	1	16
		21	96

*Part-time.*

10-15	Six Lecturers.	300 <sup>3</sup>	6	...
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**138.** In Applied Chemistry the staff is at present one Professor and two Lecturers. The number of lectures per week

<sup>1</sup> When a vacancy occurs in one of the present lectureships in Inorganic Chemistry a Lecturer in Physical Chemistry should be appointed.

<sup>2</sup> Two for Physical Chemistry, one of whom will be on a temporary basis as indicated above and the third is for Organic Chemistry.

<sup>3</sup> If, as at present, they are only required to deliver one lecture per week, the remuneration should, we suggest, be Rs. 50 per month. They also conduct the practical work of students attached to the Presidency College.

separate from the Pure Chemistry lectures is 11. Practical work supervision is 12 hours per week in the 5th-year (the remainder is done in the Physical Chemistry Laboratory) and 20 hours per week in the 6th-year, *i.e.*, 32 hours per week.

**139.** We recommend the following staff for Applied Chemistry :

	Rs.	Lectures.	Practical work.
1. Professor (Ghose)	700- <sup>5.0</sup> / <sub>2</sub> -1,000	3	6
2. Lecturer	200-20-500	3	12
3. Do.	200-20-500	3	12
4. Assistant Lecturer (on a temporary basis).	150-15-300	1	16
		10	46

**140.** We have not proposed any increase of permanent staff pending the examination of the question of separation of the two Departments. The Assistant Lecturer should be appointed on the understanding that, if after the report of the Special Committee which we have proposed elsewhere it is decided not to create a separate Department, the possibility of associating part-time teachers from industrial concerns in replacement of the Assistant Lecturer should be explored.

**141.** We recommend that the possibility of arranging for instruction in Drawing by co-operation with the Sibpur Engineering College should be considered by the Board. It will, we think, be of advantage in a Department like Applied Chemistry to associate a part-time Lecturer from some industrial or practical organisation.

**142.** The maximum possible cost of the proposed scheme is Rs. 8,000 as against Rs. 6,050 of the present one. Of this Rs. 2,500 is contributed by the Trust Funds.

#### *Creation of two separate Departments in Physics and Chemistry.*

**143.** It has been represented to us by teachers of both the Departments of Physics and of Chemistry that the creation of new Departments, one for Applied Physics and another for Applied Chemistry, is desirable. It has been urged particularly in Chemistry that the course studied by students taking Applied Chemistry is so specialised and technical that the work is being unduly hampered by its continued association with Pure Chemistry.

There is obviously a certain amount of common matter in an Applied and a Pure Course and there are advantages in the early stages in having a common administration. Whether or not Applied Chemistry and Applied Physics have so developed in the University as to justify their being administered as separate Departments we are not in a position to say. It is dependent upon the extent to which new matter is incorporated within the course, the probable advantages that would accrue from separation and the probable future prospects of development. We recommend, therefore, that a Special Committee should be appointed to investigate and report upon these questions. The Committee, we feel, might with advantage contain certain members not belonging to the University staff as well as representatives of the Departments concerned. Pending the result of such an enquiry, we do not feel that we can recommend any increase of staff beyond that contained in our Report. We request the above Committee to consider the memoranda sent to us and printed in Appendix No. 3.

## BOTANY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 90) :

- (1) 2 Professors (one Ghose Professor and one University Professor).
- (2) Part-time teachers from the Presidency College.

It was recommended that on the retirement of the University Professor of Botany a whole-time Lecturer in the regular grade should be appointed in his place.

*Statistics.**Actual Staff :*

Whole-time: 2 (Ghose Professor, 1 Lecturer on grade in place of the University Professor who retired on 31st December, 1928).

Part-time: 2 (from the Presidency College).

No. of candidates, M.Sc., 1928	...	6
No. of 5th-year students	...	9
No. of 6th-year students	...	13
No. of 5th-year lectures	...	2 plus 6 common with 6th-year.
No. of 6th-year lectures	....	1 plus 6 common with 5th-year.
-----		
Total No. of lectures	...	9
Practical work at University	...	9 hours.
„ at Presidency College	...	8 hours.

*Analysis of Work.*

Name of Teacher.	Salary. Rs.	Lecture Time-table.	Practical.	Actual in year.	Average.
<i>Whole-time.</i>					
Prof. S. P. Agharkar (Ghose Professor)	750	6	9	106	4½
I. B. Banerjee (appointed on the 31st Jan., 1929).	200	4	...	84	3½
<i>Part-time.</i>					
S. C. Banerjee	...	2	5	35	1¾
G. P. Majumdar	...	2	4	50	2

**144.** The work actually being done at present is therefore nine hours' lectures per week and seventeen hours' practical. Eight of the seventeen hours' practical are taken at the Presidency College and supervised by the part-time Lecturers. We do not consider that there is any reason why part of the practical work should not continue to be done, as at present, in the Presidency College. We consider, however, as recommended elsewhere, that work in Post-Graduate Botany should be concentrated at the Science College Buildings as soon as accommodation is available there.

**145.** A new scheme of work has been proposed by the Board and approved by the Senate which will involve a greater amount of lecture work than at present. We consider that the following staff will be adequate :

	Rs.	Lectures.	Practical.
<i>Whole-time.</i>			
1. Professor	700- <sup>50</sup> / <sub>2</sub> -1,000	4	...
2. Lecturer	200-20-500	4	12
3. Asst. Lecturer	150-15-300	2	14
<i>Part-time Lecturers.</i>			
1. Lecturer	100	2	4
2. Do.	100	2	4
		—	—
		14	34

If, after the new scheme is in operation, it is found that the staff is insufficient, we recommend that the Senate should reconsider the question.

It is also to be understood that if the scheme of centralisation recommended above is carried out the staff required will have to be reconsidered.

**146.** The maximum cost of the proposed scheme would be Rs. 1,800 per month as against Rs. 1,050 for the present staff. Of this the Trust Fund contributes Rs. 500.

## ZOOLOGY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 91) :

- (1) 1 University Professor.
- (2) 1 Whole-time Lecturer in the usual grade.
- (3) 2 Demonstrators in the grade of Assistant Lecturers.
- (4) 2 part-time lecturers or the equivalent in men from the Colleges or outside (*e.g.*, from the Zoological Survey).

*Statistics.**Actual Staff in 1928-29 :*

Whole-time Teachers	... 4	(1 University Professor on grade. 1 Lecturer on grade. 2 Asst. lecturers on grade.)
Part-time Teachers	... 1	
Candidates M.Sc., 1928	... 7	
No. of 5th-year students	... 8	
No. of 6th-year student	... 6	
No. of 5th-year lectures	} ... 14	
No. of 6th-year lectures		
Practical work 45 hours	11-6, 30 each day	inclusive of undergraduate work.

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table lectures.	Actual 1928-29.	Average.
<i>Whole-time.</i>				
	Rs.			
Prof. B. K. Das	650	6	147	6
D. D Mukherjee	275	6	146	6
H. N. Ray		On leave.		
Dr. H. K. Mukherjee		Do.		
<i>Part-time.</i>				
Rai G. C. Chatterjee				
Bahadur (Honorary)				

In addition to the above Post-Graduate work the staff also undertake undergraduate work as follows :—

Prof. B. K. Das	...	... 4 hours per week.
D. D. Mukherjee	...	... 4 hours per week.

147. Owing to the absence on leave of two of the whole-time teachers, the remaining members of the staff have had to undertake considerably more than the normal amount of teaching. The necessary work for the Post-Graduate classes is 14 hours' lectures in addition to practical class supervision. We consider that the following staff is necessary and sufficient for the present needs of the Post-Graduate classes :

	Lectures.	Practical.
<i>Whole-time.</i>		
1. Professor (700-500-1,000)	... 4	...
2. Lecturer (200-20-500)	... 6	8
3. Asst. Lecturer (150-15-300)	... 1	16
4. Do. (150-15-300)	... 1	16
<i>Part-time.</i>		
5. 1 Lecturer (100)	... 2	...
	14	40

The *minority* were of opinion that one of the Assistant Lecturerships would be replaced by a Lecturership on grade.

The above staff is not sufficient either for leave emergencies or for undergraduate instruction. As the Post-Graduate classes are small, part of the practical work supervision might be effected conjointly with that of undergraduate classes. The undergraduate classes require 8 lectures per week together with practical work. We consider that this work should continue and that to cope with the work an additional Lecturer in grade should be appointed. This Lecturer should be regarded as a Post-Graduate lecturer and the exact allocation of work—undergraduate and Post-Graduate—among the different teachers should be a matter of departmental arrangement.

148. We do not consider that the present site of the laboratory is satisfactory and deal with this question more fully elsewhere.

149. We consider that the services of specialists from the Zoological Survey should be utilised as far as possible.

150. The maximum cost of the proposed scheme would be Rs. 2,200 per month as against Rs. 2,100 for the present staff. Including the provision for undergraduate work, the maximum cost of the proposed scheme will be Rs. 2,700.

## PHYSIOLOGY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 88) :

- (1) 3 Lecturers attached to the Presidency College (for the purposes of classification they shall be treated as part-time Lecturers).
- (2) 1 whole-time Lecturer in the graded service.

*Statistics.**Actual Staff :*

Whole-time Teacher : 1 Lecturer in grade.

Part-time Teachers : 5 (including 2 from Bio-chemistry).

No. of M.A. students, 1928 ... 5

No. of 5th-year students ... 4

No. of 6th-year students ... 8

No. of lectures, 5th and 6th-years ... 12

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual No. of lectures in 1928-29.	Average per week.
<i>Whole-time.</i>				
Dr. B. B. Sarkar (on leave from the 27th June, 1929).	Rs. 325 (from Jany., 1929.)	2	70	2 $\frac{1}{2}$
<i>Part-time.</i>				
Prof. S. C. Mahalanobis	250	2	60	2 $\frac{2}{5}$
N. C. Bhattacharyya	...	2	74	3
N. M. Bose	...	2	60	2 $\frac{2}{5}$
Rai Dr. U. N. Brahmachari, Bahadur			8 per year.	Honorary.
P. B. Sen ( <i>Whole-time</i> for Bio-Chemistry)			26 per year.	

**151.** The time-tables for M.Sc. and Honours classes show altogether 12 lectures and 36 hours of practical work per week. It appears from the routine that the M.Sc. lectures are 8 per week. The M.Sc. practical work is supervised in the Presidency College. The chemical portion of the practical work is done in the Bio-Chemistry Department. It appears therefore that the Post-Graduate lectures are only 4 in the 5th-Year and 4 in the 6th-Year. According to the time-table, the whole-time teacher works on Mondays and Fridays only. Students do not appear to have the same demand upon their time as in other

Science Departments. We consider that more lectures and practical work are necessary.

152. There appears to be no reason why, by co-operation between the University and the Government, the work in this Department should not at present be concentrated in the Presidency College and economy effected. It would be necessary for the University to have some voice in the appointment of all teachers in the Department and definitely to appoint them as University teachers. We understand that Government are contemplating the appointment of a teacher on a high rate of pay for the Physiology Department of the Presidency College. Such an appointment and all appointments of Physiology teachers who would take part in Post-Graduate teaching should, we consider, be made by Government on the recommendation of a Committee on which the University is adequately represented and their appointments as University teachers should be made by the Senate. The Post-Graduate work should of course remain under the control of the University. We recommend that Government be approached to approve of the following plan :

(1) All teachers of the Physiology staff of the Presidency College engaged for participation in Post-Graduate work should be appointed by Government on the recommendation of a Physiology Selection Committee .. and with the approval of the Senate.

(2) The constitution of the Committee should be as follows :

1. The Vice-Chancellor.
2. The Director of Public Instruction.
- 3-4. Two University representatives appointed by the Executive Committee in Science one of whom must be an expert in the subject.
- 5-6. Two nominees of Government, one of whom must be an expert in the subject.

The *minority* were of opinion that the President of the Post-Graduate Council in Science should be added to the Committee as an *ex-officio* member.

(3) Government should maintain a sufficient staff to supply the necessary "whole-time" teachers as recommended by the University, so far as the Post-Graduate work is concerned.

- (4) Specialist part-time teachers should be appointed as required by the University.
- (5) All practical and theoretical work should be done in the Presidency College in consultation with the Board of Higher Studies.

**153.** While we are of opinion that it is desirable as a temporary measure to retain the system of concentrating Post-Graduate teaching in Physiology in the Presidency College, we feel that in the near future it will be more advantageous to the University to have the Physiological Laboratories closely associated with the Botanical, Zoological and Chemical Laboratories at the Science College. The subject is one which will increase in importance and it is extremely likely that the accommodation at present available at the Presidency College will not long suffice to supply the needs of the University. The reason that we do not recommend this course immediately is that the building of laboratories at the Science College will involve capital expenditure of probably thirty to forty thousand rupees together with an annual recurring expenditure of not less than Rs. 25,000. While this would, we consider, be justified if the University were in a position to provide for this expenditure, we feel that there are other problems more urgent of solution, which should have a first call upon the funds which may be available to the University. As soon as the financial situation is such that this work can be undertaken, we recommend that this course be adopted.

**154.** The scheme we have recommended for immediate acceptance is not, we admit, ideal and for its satisfactory working will require goodwill on the part of both the University and Government. We consider that this is possible and that our scheme achieves economy without sacrificing efficiency.

If the scheme is not approved by Government, the Senate will have to reconsider the whole situation.

Further, if it is not possible to make adequate provision for teaching undergraduate studies in the Presidency College, we consider that provision for it will necessarily have to be made in the University and in that event Post-Graduate work, as at present, will also be undertaken by the University.

**155.** We strongly recommend that the claims of the present incumbents appointed by the University should receive prior consideration by the Physiology Selection Committee in making appointments to the teaching staff:

## GEOLOGY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (pp. 86-87) :

- (1) 1 whole-time Lecturer in the regular graded service of the University, and
- (2) 3 part-time Lecturers, one of whom at least shall be from the Colleges.

*Statistics.**Actual Staff :*

Whole-time teachers : 2 (one Lecturer in grade ; one Assistant Lecturer in grade).

Part-time teachers : 2 (one from Presidency College).

No. of M.A. students, 1928	...	4
No. of 5th-year students	...	2
No. of 6th-year students	...	1
No. of lectures—5th and 6th-years	...	7

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actuals No. of lectures in 1928-29.	Average per week.
<i>Whole-time</i>				
1. Saratlal Biswas	Rs. 375	2	58	2½
2. Nirmalnath Chatterjee	165	2	44	1¼
<i>Part-time.</i>				
Hemchandra Dasgupta (from the Presidency College).	...	2	Register not received.	
K. K. Sengupta	(Annual honorarium Rs. 500).	A course of 30 lectures.		

**156.** The scheme we have recommended for Physiology should, we consider, be adopted for the Geology Department also.

**157.** We consider it specially desirable to enlist the active support of the Department of Geological Survey of India both in the interests of efficient education and of the students studying Geology. Such help is essential to ensure that the

students obtain adequate practical knowledge of the subject and we recommend that this aspect should be borne in mind by the Geology Committee.

158. We strongly recommend as in Physiology, that the claims of the present incumbents should receive prior consideration by the Selection Committee when making recommendations for the staff in the Presidency College.

## PSYCHOLOGY.

Sanctioned Staff according to the Report of the last Re-organisation Committee (p. 73) :

- (1) Three whole-time Lecturers in the graded service, one Lecturer to be in charge of the Department.
- (2) Two Assistant Lecturers.
- (3) Three part-time Lecturers for two years outside the graded service. (In recent years the Senate has replaced two of these by one whole-time teacher and the third post has been dropped as indicated.)
- (4) One part-time Lecturer from the Colleges.

*Statistics.**Actual Staff :*

Whole-Time teachers : 6 (one in grade 500-750 and five in the usual grade.)

Part-Time teacher : 1.

No. of B.A. students, 1928	...	...	9
No. of 5th-year students (M.A. & M.Sc.)	...	...	16
No. of 6th-year students (M.A. & M.Sc.)	...	...	12
No. of 5th-year Lectures	...	...	22
No. of 6th-year Lectures	...	...	20

*Analysis of Work.*

Name of Teacher.	Salary.	Time-table hours per week.	Actual No. of lectures in 1928-29.	Average per week.
	Rs.			
1. Dr. N. N. Sengupta	... 700	8	167	$6\frac{3}{5}$
2. M. N. Banerjee	... 350	6	173	7
3. H. P. Maiti	... 400	7	91	$3\frac{3}{5}$
4. Dr. S. Mitra	... 350	8	150	6
5. Gopeswar Pal	... 250	6	135	$5\frac{2}{5}$
6. M. Ganguly	... 195	4	160	$6\frac{2}{5}$

*Part-time.*

Dr. B. C. Ghosh	... 100	3	50	2
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These teachers, in addition to the work indicated above, also have to work in connection with the 3rd and 4th-year Pass and Honours courses.

**159.** The present syllabus of studies requires preparation for four theoretical papers in the M.A. Examination and for a Practical Examination. This gives for the M.A. Examination 12 hours' lecture work per week in addition to the work of supervision of practical classes.

**160.** The evidence given revealed the fact that the syllabus of studies requires considerable revision in order to include modern developments. There has been no change in the Regulations since 1904, although the scope of the syllabus has been changed from time to time. Proposals have now been made to remodel the syllabus more in accordance with modern requirements, and we recommend that the revised syllabus as proposed by the Board of Higher Studies should be amended so as to include (1) a compulsory paper on Philosophy and (2) a compulsory paper on General Psychology. We are of opinion that more stress should be laid on the study and solution of the peculiar problems of industrial and educational psychology problems characteristic of the country, than has hitherto been the case.

**161.** We are of opinion that in this department there should be an adequate number of men trained on the experimental side and that the Selection Committee should ensure that such men are appointed. In particular we feel that the Head of the Department should be capable of giving a definite orientation on the experimental side. This we consider to be essential.

**162.** Assuming that this principle is accepted, we recommend the following staff for Post-Graduate teaching alone. The lecture provision assumes the adoption of a syllabus on the lines recommended.

*Proposed Staff.*

<i>Whole-time.</i>	Rs.	Lectures.	Practical.
1. Professor or Reader in Exptl. Psychology	700- $\frac{50}{2}$ -1,000 or 500- $\frac{50}{2}$ -700	6 (or 4)	...
2. Lecturer	200-20-500	... 6	... 3
3. Do.	200-20-500	... 4	... 12
4. Assistant Lecturer	150-15-300	... 2	... 14
<i>Part-time.</i>			
5 & 6. Two Part-time <sup>1</sup> Lecturers	300	... 3	...
		—	—
		24 (or 22)	34

<sup>1</sup> Of the two part-time Lecturers one, who will preferably have medical qualifications, would deal with Abnormal Psychology. The pay of this part-time Lecturer may be on a special basis.

We consider that the actual status and pay of the holder of the first post above should depend on the qualifications and experience of the candidates available.

**163.** We recommend that amongst the staff there should be men with a special knowledge of Physiological, Child and Animal Psychology. The *majority* recommend that for practical convenience Experimental Psychology, in the meantime, should be regarded as a Department on the Science side.

**164.** The maximum cost of the staff proposed by us will be Rs. 3,000 *plus* Rs. 300 (if a Professor is appointed instead of a Reader). The present cost is Rs. 2,900.

## BIO-CHEMISTRY.

**165.** At present there is a Bio-Chemistry Department run conjointly with the Post-Graduate Physiology Department but there is no provision for this subject as a separate branch of study for the M.Sc. Examination. In many British Universities there is a separate Department of Bio-Chemistry treated as a separate subject. In view of its importance and its relationship to Chemistry, Botany, Zoology, Medicine, and Agriculture, we consider that it is necessary to make provision for studies in this subject. It is assumed that the co-operation of the staff of the Chemistry Department taking part in the teaching of Organic and Physical Chemistry including Colloids as also of the Physiological and Zoological Departments, will be available. The Syllabus in Chemistry (Pure) and Physiology should if possible be extended so as to offer to students the necessary training in Bio-Chemistry. While we recognise that separate provision for the study of Bio-Chemistry may in future have to be made, we are not prepared at present to propose that additional expense should be incurred but we recommend that the Honorary Lecturer and the Assistant Lecturer should continue to work in the University. The desirability of associating these teachers with the work in the Physiology Department should also be considered by the Science Executive Committee. We recommend further that the Board of Higher Studies in Chemistry and Physiology should be requested to consider these suggestions and formulate proposals regarding Syllabus and other details provided that the scheme so drawn up does not require additional staff.

**166.** The staff will therefore be as at present

1 Honorary Lecturer.

1 Assistant Lecturer on fixed pay of Rs. 200.

## AGRICULTURE.

167. The position of the University in relation to the Professorship of Agriculture under the Khaira Trust is anomalous as no provision has been made either for systematic research or the training of students in Agriculture or any of its branches. Under the Ghose Trust the Chair of Botany has been established (with special reference to Agriculture) but so far nothing has been done to bring his work in correlation to agricultural studies. The importance of Agriculture for this province need not be dwelt upon but in view of the financial liabilities involved in the establishment of a fully equipped separate Department of Agriculture and of the proposal of Government to establish a College of Agriculture at Dacca, we are in general agreement with the recommendations of the Royal Commission on Indian Agriculture as to the form which Agricultural studies should take in this University. We give below the relevant extracts from the Report of the Royal Commission dealing with this question :

“ The position of the Indian Universities in regard to agricultural research cannot be regarded as satisfactory. .... The Calcutta University has established a Chair of Agriculture and the University of Benares has now founded a similar chair. But it does not appear that in any University steps have been taken to bring agricultural research into close relationship with other branches of Science taught at the Universities. Agricultural research is regarded as entirely a matter for the Government Agricultural Colleges. It should not, in our view, be isolated in this way..... The importance of carrying out agricultural research in closest touch with other branches of scientific research can hardly be exaggerated. The advantages of mutual intercourse between research workers in different fields have been demonstrated in many countries and Indian Universities and Agricultural Colleges (in Bengal there is no Agricultural College, here the desired co-operation is to be sought with the Department of Agriculture and its research activities) can no longer afford to work in isolation. We look forward to a state of affairs in which the Universities will not only initiate agricultural research but will also undertake schemes of research. It will, we fear, be long before the Universities are in a position to take over agricultural research to the extent to which it has been taken over by Universities in Western countries, but this is the end which should be kept steadily in view and which both the

Universities and Government should endeavour to reach as speedily as possible. It is with a view to facilitating advance in this direction that we have provided for the representation of the Universities on the Council of Agricultural Research and on the Provincial Committees which will work in co-operation with it. We have also suggested that the Council of Agricultural Research should be in a position to make grants for research work in connection with agriculture carried out at the Universities."

Referring to the recommendations of the Calcutta University Commission in regard to agricultural teaching in the University of Calcutta, the Royal Agricultural Commission held that "in view of the prominent place given to scientific studies in the University, Calcutta should prove a suitable centre in which to train science students who propose to engage themselves in agricultural research."

**168.** We note that the Council of Agricultural research, as recommended by the Royal Commission on Indian Agriculture, has been recently constituted by the Government of India. The purpose of the Council is to make funds available for research in circumstances where the prospects of carrying out a particular scheme of research are favourable. After subjecting such schemes to examination by its expert advisers, the Council will make such grants as it considers suitable. The Government of India have fixed the initial grant at Rs. 25 lakhs, of which Rs. 15 lakhs have been provided in the Budget for 1929-30.

**169.** In our opinion it is desirable to make an attempt to give effect to these recommendations of the Royal Commission so far as our resources permit. This, we consider, should be done through the Committee the Syndicate has recently appointed to deal with this question and the materials placed before us should be considered by it. In making its recommendations the Committee should take into consideration the desirability of co-operating with other bodies interested in the study of Agriculture, e.g., Dacca University and the Agricultural Department of the Government of Bengal.

## CHAPTER VII

### ACADEMIC ORGANISATION.

#### A. *General Administrative Systems.*

170. In view of the pending examination of the comprehensive proposals for re-organisation embodied in the Draft University Bill, we do not think it advisable to make in this Report full and detailed recommendations regarding the general administrative system in the University. There are certain directions, however, in which as a result of the evidence submitted to us, we are convinced that change is desirable. Our recommendation for the appointment of Heads of Departments embodies one of these changes and we desire to indicate what further changes are, in our opinion, necessary, in order to complete the scheme of control thereby initiated.

171. The following aspects of the present system of administration appear to us to require consideration.

Academic control is sharply divided in two directions. Firstly there is little or no co-operation or co-ordination in the work of the Post-Graduate Council of Science and that of the Post-Graduate Council in Arts. Secondly, undergraduate and Post-Graduate studies are controlled by differently constituted bodies whose policies are not co-ordinated. It seems to us that so far as Post-Graduate studies are concerned, the case for some common academic controlling authority is inescapable. Questions of common academic interest such as leave, general conditions of admission to examinations, general scheme of work, etc., should obviously be dealt with by an undivided academic authority whose relationship to the Senate should be definitely determined in conformity with the general scheme of organisation adopted. We also feel that it would still be necessary for the consideration of questions of restricted application to have academic authorities subordinate to the above and with limited functions, for example one dealing with studies in Science subjects and one with studies in Arts subjects, but these authorities should on questions of general policy and application carry out the decisions of the common academic body. In Science the constitution of the subordinate body should, we feel, be adjusted so that it could perform the functions now carried

out by the Governing Body of the College of Science. This could be secured by a readjustment of the functions and constitution of the Executive Committee or of the Governing Body of the College of Science together with such modifications as may be rendered necessary by the requirements of the different Trusts. Obviously in certain matters both the Arts and the Science bodies would have executive authority without reference to the common academic authority. We recommend such a scheme for the consideration of the 'Draft University Bill' Committee. The exact powers and constitutions of the common academic authority—say an Academic Council—and of the Arts and Science Councils should be worked out by that Committee in conformity with their general scheme.

Even more striking than the separation of control of the Arts and Science sections is that which exists between Post-Graduate and undergraduate academic and administrative control. We do not see how it is possible under the present Act satisfactorily to remedy this state of affairs. This situation has arisen primarily because the Post-Graduate organisation was built up later and added to a system originally devised principally to meet a scheme of affiliation of external Colleges without contemplating its subsequent development as a central teaching body. It is not surprising, therefore, that full co-ordination of purpose and reconciliation of schemes of academic and administrative control of undergraduate and Post-Graduate teaching have not been hitherto possible. We are convinced, however, that if the University is to be developed as an organic whole in which the educational development characteristic of one part is to be closely correlated with that of the other, then the Boards of Studies and the advisory and executive bodies exercising jurisdiction over one part must be either common or closely connected with smaller bodies in the other part. The difficulties in the way of achieving complete correlation under the present Act are, we feel, almost insuperable, but it is our opinion that a greater measure of co-operation than at present is possible even under the present Act. We definitely recommend that as soon as possible, by a change in the Act if required, the Boards of Higher Studies and the ordinary Boards of Studies should be amalgamated or very closely correlated. An immediate measure of co-operation which we consider to be practicable and desirable is that of altering the constitution of the Boards of Studies in such a way as to guarantee the presence on each Board of Higher Studies of members who are also members of the corresponding ordinary Board and

*vice versa*. We, therefore, recommend that where there exist both Boards on the same subject, the following principle be carried into effect :

Where a Board of Higher Studies (or an ordinary Board) as constituted under the existing Regulations

- does not contain at least 33 per cent. of members who
- are also members of the relevant ordinary Board (or the Board of Higher Studies) such a number of members shall be co-opted from the ordinary Board (or the Board of Higher Studies) as will bring the percentage as near as possible to 33.

This percentage is almost realised in most cases already. There are just a few where it is not.

172. The administrative system of control of Post-Graduate Studies is practically separated from the general administrative system. The Vice-Chancellor, as such, has no authority or place in the scheme of Post-Graduate control at present in operation, except that he is *ex-officio* Chairman of the Boards of Appointments on whose recommendation the Senate makes appointments to lecturerships. Neither he nor the Syndicate have any effective voice in the administration of Post-Graduate studies and it is left to the Senate to reconcile differences of outlook, to decide between the different demands which are made upon the University funds, and to effect such co-ordination as is possible. The result has been the accentuation of the inevitable differences of opinion that must arise when issues and points of view, widely different from one another, have to be decided. The Syndicate was designed to be the Executive Body of a University not concerned with teaching activities of its own. It has not been reconstructed to be the Executive Body—even in non-academic matters—of a University developed so as to include the control of Post-Graduate studies. A re-organised scheme should, we feel, remedy this and restore unity of purpose and unity of administration. A first step towards this end appears to us to be that of making the Syndicate representative of all University activities and of delegating to it executive functions in all non-academic matters. This is not possible until the Act is changed but we consider that it is desirable and recommend it for the consideration of the Draft University Bill Committee. This will involve reconstitution of the Senate and other University bodies, making them more representative in character.

**173.** Another development, which we consider desirable and are convinced would lead to greater co-ordination, would be that of a closer association of the Vice-Chancellor with Post-Graduate activities. Under a re-organised scheme the Vice-Chancellor (or Pro-Vice-Chancellor or Principal) should in our opinion be, *ex-officio*, Chairman of the common Academic Council and should be assimilated into the Post-Graduate system. This opinion and recommendation are, however, intimately connected with our conception of the duties of the Vice-Chancellor and the method of his appointment. It would not, we consider, be desirable to make him Chairman of such a Council, unless he were a whole-time salaried officer and a distinguished educationist appointed in such a way as to command the confidence of the University as a whole ; the exact mode of appointment we leave to the Committee appointed to consider the Draft University Bill.

**174.** The appointment of a whole-time salaried officer as an administrative head appears to us to be also necessary for completing the scheme of control initiated by the appointment of Heads of Departments. We are divided in our opinion as to whether this officer should be a Vice-Chancellor, Pro-Vice-Chancellor or Principal. The former seems to many of us to offer the best solution as it brings into closer connection all the activities of the University. There would then be one responsible Executive Officer in the University. Some of us feel, however, that the present tradition of an honorary Vice-Chancellor should not be lightly dispensed with and that a salaried principal officer performing, essentially with regard to the Post-Graduate Department, the functions of the Principal of a College is preferable. We are convinced that, with the University responsible, as it is at present, for such numerous and important activities, it is not possible for any save a whole-time officer effectively to supervise all branches of University work. While the two Councils of Post-Graduate teaching are maintained, it is hardly possible normally to have a common President ; for, with technical duties devolving upon the Councils, a President with a knowledge of those technicalities is desirable. Consequently, we do not consider that immediate action with regard to the appointment of a salaried Vice-Chancellor or Pro-Vice-Chancellor would be wise until re-organisation upon the lines we have indicated is undertaken. We regard such re-organisation and such an appointment as essential and recommend them for the consideration of the Draft University Bill Committee.

175. We have dealt with the system of office control and organisation elsewhere and here merely point out that as far as the office staff is concerned similar unity of control and co-ordination of work is desirable.

*B. Heads of Departments.<sup>1</sup>*

176. We recommend the adoption of the following rules.

I. *Appointment of Heads of Departments :*

The Senate on the recommendation of the relevant Executive Committee shall appoint a Head of each Department as follows :

(1) Where there is only one Professor in any Department, the Executive Committee shall recommend that the Professor be appointed the Head of the Department. If there be no Professor and there be a post of Reader, then the Executive Committee shall recommend the occupant to be the Head.

(2) In the case of a Department where Clause 1 is not applicable or the relevant Executive Committee forwards a definite recommendation for its supersession in a special case, the Senate shall appoint its Head after considering the recommendation of the relevant Executive Committee.

(3) The Head shall be appointed in the first instance for five years at the end of which, if re-appointed, he shall be made the permanent Head of the Department.

The *minority* were of opinion that the Head should be appointed for 3 years and should be eligible for re-appointment.

(4) Where the Executive Committee considers it desirable it may recommend to the Senate that the term of office of the Head of a Department should terminate. A two-thirds majority of the members present at a special meeting of the Executive Committee, called for the purpose, shall be necessary for such recommendation.

(5) A temporary appointment of an officiating Head shall be made by the Executive Committee, when necessary.

II. *Duties of Heads of Departments :*

(1) The Head of a Department shall be responsible to the University and primarily to the relevant Executive Committee for carrying out the policy of the University within the Department and for ensuring efficient working.

<sup>1</sup> The *minority* were of opinion that the Head of a Department should be called Chairman of the Board.

(2) He shall be the Chairman of the relevant Board of Higher Studies.

(3) He shall arrange the time-table in consultation with the other teachers of the Department.

(4) He shall be responsible for the proper expenditure of money allocated to the Department and for ensuring that a proper account is kept of the appliances, apparatus, etc., in the Department.

(5) He shall be responsible for ensuring that the students receive such advice and guidance, as they may require, with regard to their courses of studies or other matters. In consultation with other members of the staff, he shall allocate students to individual members of the staff for tuition and guidance for the purposes generally indicated in sections 34 and 35 of Chapter XI of the Regulations.

(6) He shall grant urgent short leave to teachers within the Department in accordance with rules and regulations. If a teacher is working in more than one Department, the Head of the department to which he is primarily attached shall immediately send intimation of such leave to the Heads of the other Departments concerned.

The *minority* are of opinion that leave should be granted by the President.

(7) He shall, through the Board of Higher Studies, submit an annual report to the relevant Executive Committee on the progress of work and the needs of the Department.

(8) In Departments where there are Professors holding endowed Chairs who are called upon to undertake Post-Graduate teaching work either under the terms of the Trust or by the Senate and who are also in charge of special work or appointed for special purposes, they shall remain under the general jurisdiction of the Head of the Department so far as teaching and arrangements connected therewith are concerned. They shall however have independent charge of their special laboratories, and of the arrangements for teaching and research in their own laboratories, provided that such arrangements are consistent with the time-table as arranged under clause (3). In matters concerning their own individual work or duties, apart from teaching as laid down under the terms of their appointment or by order of the Senate, they shall not be subject to the jurisdiction of the Head.

(9) Matters affecting a particular laboratory and requiring action by the Head of the Department shall be placed before

the Head by the teacher in charge of the laboratory along with his recommendations.

(10) Admission of students shall be made by the Head of the Department in accordance with the rules.

(11) The Head of a Department shall have power to certify, after consultation with the teachers concerned, that the rule requiring 65 per cent. of attendances (*vide infra* para. 180) shall not apply in the case of particular students.

### III. Allowance to Heads of Departments :

According to our recommendations a considerable amount of organising and administrative work will have to be done by the Heads of the different Departments. In the larger Departments, in particular, this work will be onerous and efficient supervision will be necessary if the University Post-Graduate studies are to be satisfactorily controlled. We recommend therefore that allowances should be payable to the Heads in accordance with the following scheme :

The Senate should normally sanction an allowance of Rs. 150 to the Heads of the following Departments :

- English,
- History,
- Mathematics (pure),
- Economics,
- Philosophy,
- Physics,
- Chemistry,

and an allowance of Rs. 100 to the Heads of the following Departments :

- Applied Mathematics,
- Zoology,
- Botany,
- Ancient Indian History and Culture,
- Psychology,
- Sanskrit,
- Indian Vernaculars,
- Anthropology.

On account of the small number of students we do not think it is necessary at present to sanction an allowance to the Heads of the Departments of Pali and Comparative Philology. Where for any reason it is considered that any deviation

from the above normal allowance is desirable, the Senate should sanction the necessary variation. Such deviation would be justified, we consider, either by reason of the distinguished work done by any particular individual or by such a development of a particular Department as would require greater organisation and more time for its efficient control.

*C. Constitution of the Executive Committee.*

**177.** In accordance with our recommendation that Heads of Departments should be responsible to the University and primarily to the Executive Committee for carrying out its policy within the Department, it is desirable that the constitution of the Executive Committee should be changed. We recommend, therefore, that the Executive Committee should be annually constituted as follows :

- (1) President of the relevant Council, Chairman.
- (2) Vice-Chancellor.
- (3) Heads of Departments within the jurisdiction of the Council.
- (4) Professors, including Honorary Professors, other than Heads of Departments, within the jurisdiction of the Council.
- (5) Four representatives of the Senate of whom at least two shall be Principals or teachers of affiliated Colleges.
- (6) Two representatives of the Syndicate.
- (7) One representative of the relevant Faculty.
- (8) One teacher representative of each relevant Department to be elected by the relevant Boards of Higher Studies, except in Physics, Chemistry, and Botany, where there shall be two representatives, one from the Presidency College and one from the Science College.

**178.** We strongly recommend that, if possible, the Executive Committee in Science, with such further modification of the above constitution as may be necessary to meet the needs of the case, should take over the duties of the Governing Body of the College of Science. As soon as the Executive Committee in Science is constituted, it should advise the Senate in consultation with the Governing Bodies of the Trusts as to the steps which must be taken in order that the functions now exercised by the Governing Body of the College of Science could be performed by the new Executive body.

*D. Conditions of Admission to the M. A. and M.Sc.  
Courses of Study.*

179. On hearing the evidence which has been submitted, we were impressed by the fact that in many subjects there are no definite conditions laid down which must be fulfilled by students before they are allowed to undertake any particular course of M.A. or M.Sc. studies. It is in our opinion necessary that there should be a definite correlation between the undergraduate course of studies pursued by students and that taken by them for a Post-Graduate Degree. In certain Post-Graduate classes there are students, who have taken an Honours Degree in the subject prior to admission to the M.A. course, others who have taken the ordinary pass Degree in the subject and still others who have not taken the subject at all in their undergraduate classes. It is clear that the problem of efficiently organising and instructing a class, consisting of students of such greatly differing academic equipment, is extremely difficult of solution and that it is necessary definitely to lay down the qualifications which must be fulfilled by a student before he can be allowed to follow a particular line of M.A. or M.Sc. instruction.

Although there are no general regulations governing the admission of students, there are specific provisions in certain cases. In many cases the approval of the Board of Higher Studies is merely formal and the students are admitted by the Secretary. We are of opinion that in future admission should be made by the Head of the Department in accordance with rules which should be approved by the Executive Committee. Doubtful cases should be determined by a Committee, consisting of the Head and two other teachers appointed by the Board concerned. The rules should be proposed by the Boards and sanctioned by the Executive Committee, so as to ensure uniformity of procedure as far as possible, and should embody what are, from the academic point of view, the necessary preliminary courses of studies which each student must undertake before he can be allowed to commence Post-Graduate studies in a particular Department. While we are of opinion that it will be distinctly in the interests of Post-Graduate study, if admissions are ordinarily restricted to those who have taken an Honours course of studies in the particular subject or in a closely allied subject or have obtained distinction in the subject in the Degree examination, we realise that there will be difficulties in the way of a rigid application of such a principle. We consider that in other cases

the Head of the Department should satisfy himself as to the ability of the students satisfactorily to take up the Post-Graduate courses, which should ordinarily be regarded as continuous with the Honours course. It will be desirable to provide for a preliminary course of studies, extending over not more than three months, for these ordinary pass students.

**180.** We further recommend that the present rule, requiring 75 per cent. attendance at lectures for students appearing at the M.A. and M.Sc. examination should be altered and the percentage reduced to 65. The Head of the Department, as recommended previously, should be empowered to relax this rule in special cases.

*E. Simultaneous Study of Post-Graduate and Law Courses.*

**181.** We have carefully considered the question of the desirability of allowing simultaneous study of M.A. or M.Sc., and B.L. Courses by our graduates. There are some amongst us who advocate the acceptance of a rigid rule that no graduate in Arts or Science should be allowed to undertake studies in two Faculties simultaneously; there are others who are definitely of opinion that an inelastic rule of this description should not be laid down. Some of the witnesses who have appeared before us have given evidence that if an M.A. student prosecutes Law study simultaneously, it often has a tendency to interfere with his Post-Graduate work. On the other hand, as the Calcutta University Commission pointed out (Vol. V, p. 127), we have also, the undoubted fact "that ever since the establishment of the University many graduates of distinction have simultaneously prosecuted the study of Law and the Post-Graduate course without any apparent detriment." This question received careful consideration at the hands of the Calcutta University Commission and has been dealt with at pp. 127-131, Vol. V, of their Report. The Commission thus expresses itself: "Taking into account all considerations we incline to the view that on the whole the wisest policy to adopt is—not to rule on *a priori* grounds that it must be harmful to students (in general or in individual cases) to pursue their studies simultaneously in two Faculties—but to leave them free under the guidance of their guardians and teachers to make their choice and then to exact from them the full measure of work in whatever course or courses they may have selected." While agreeing with the view thus expressed, we desire to lay special stress on what the

Commission says later on in this connection, namely, that "we regard it as of vital importance that the authorities should impress upon the teachers in each Faculty the absolute necessity of rigorously exacting from every student the full measure of his work.....If a student shirks his work in either Faculty on the plea that he is taxed beyond his capacity by reason of the exacting nature of his work in another Faculty, his name may and should be removed from the rolls." We regard it as essential that this aspect of the question should be kept clearly in mind by the authorities concerned with regard to such Post-Graduate students as are also reading Law. We have already made definite recommendations as regards the procedure which, in our opinion, should be adopted at the time of admission of students into the Post-Graduate classes. The *majority* are of opinion that the Head of the Department in consultation with the teachers should,—ordinarily at the time of admission and in any case not more than a month thereafter—satisfy himself that a student, who has not obtained Honours or has not passed with Distinction, but has undertaken simultaneously to study in another Faculty, is likely to give a satisfactory account of himself, so far as his Post-Graduate work is concerned. The granting of permission for the prosecution of studies by these students in more than one Faculty should be determined by such expression of opinion.

The exact procedure to be followed in giving practical effect to this recommendation should be decided by the Post-Graduate Department in consultation with the Law Colleges. Some of the members were of opinion that the test should be by means of periodical examinations.

#### *F. Examinations.*

**182.** After hearing the evidence we are convinced that an alteration in the present system of control of examinations is desirable. We feel that in the interests of the University more effective co-operation of External and Internal Examiners must be guaranteed and more uniformity of procedure from Department to Department attained.

**183.** We therefore recommend that in future the following procedure be adopted for the M.A. and M.Sc. Examinations :

(1) Examiners shall be appointed by the relevant Post-Graduate Executive Committee, after considering the names proposed by the Board of Higher Studies in each subject.

(2) For each subject there shall be an Examination Committee constituted as follows :

- (a) Head of the Department (whenever available) to be the Chairman.
- (b) Two Internal Examiners appointed by the relevant Post-Graduate Executive Committee, from amongst the Examiners.
- (c) Two External Examiners appointed by the relevant Post-Graduate Executive Committee. Ordinarily the two External Examiners shall be distinguished scholars selected from outside the University including affiliated Colleges, but this does not exclude the possibility that one of them may be taken from the affiliated Colleges or other Departments; or that, in cases where it is not possible to find men from other Universities or Technical or Government institutions, both may be appointed from the affiliated Colleges or other Departments.

(3) The quorum for a meeting of the Examination Committee shall be three and no meeting at which marks or results are considered shall be valid unless at least one External Examiner and the Head of the Department are present.

- (4) The functions of this Examination Committee shall be
  - (a) To allocate the question papers to be set by the Examiners appointed under Rule 1.
  - (b) To moderate or arrange for moderation of the question papers.
  - (c) To assign the answer-books to the Examiners.
  - (d) To consider the marks submitted by the Examiners, if necessary, to cause the papers to be re-examined, and finally to decide the candidates' marks for each paper.
  - (e) To consider the results as decided under (d) and in accordance with principles previously laid down by a joint-meeting of the Executive Committees of the Post-Graduate Councils, finally to decide the classification of the candidates. Such principles may involve a reference to the candidate's record of work in the University classes.
  - (f) To forward the results to the Executive Committee concerned for confirmation and for the publication of results.

(5) The Executive Committee shall have power to fill emergency vacancies and to remedy any defects in the composition and the findings of the Examination Committee, provided that it shall not alter the examination results as forwarded by the Committee. The Executive Committee shall have power in special cases to refer back the results to the Examination Committee.

(6) Each paper shall be marked independently by an External and an Internal Examiner, each of whom shall be unaware, at the time of marking, of the marks allotted by his co-examiner. Marks shall be forwarded direct to the Chairman of the Examination Committee who shall arrange for their submission to the Committee. The Chairman shall inform each Examiner of any marked departure in the marks finally decided upon from the marks as allotted by him. For the purposes of this section an Internal Examiner is one who is a teacher of the subject in this University.

(7) All theses submitted in lieu of one or more papers in the M.A. and M.Sc. Examinations shall be examined by one Internal and two External Examiners.

(8) The Internal Examiner and one External Examiner shall conduct the *viva voce* examination of each student submitting a thesis. Where possible the same External Examiner should conduct the *viva voce* examination of all candidates presenting theses on the same branch of a subject.

(9) External Examiners shall be paid travelling allowances at the usual rates for attending all meetings of the Examination Committees.

(10) Internal and External Examiners shall receive equal remuneration for setting and marking papers.

**184.** We recommend the following rules for the B.A. and B.Sc. examinations :

(1) Examiners shall be appointed by the Syndicate after considering the names proposed by the Boards of Studies. In subjects, for which there are no Boards of Studies, Examiners shall be appointed directly by the Syndicate.

(2) Wherever possible, the Syndicate shall appoint a Committee of Moderators for each subject forming part of the B.A. and B.Sc. Examinations constituted as follows :

(a) A Chairman appointed by the Syndicate.

(b) Two other members appointed by the Syndicate after considering the recommendations of the Boards of Studies. One at least of these members shall not be on the teaching staff of the University or of an affiliated College.

(3) The functions of the above Committee shall be :

- (a) To allot the questions and answer-papers to the Examiners.
- (b) To moderate the papers set.

(4) The Syndicate shall have the power for the following purpose to add to each of these Committees one <sup>1</sup> other member who will preferably be a teacher in the particular subject. The examination results in a particular subject will be considered by the Committee thus enlarged which will have the right to modify such results in accordance with principles laid down by the Syndicate.

(5) There shall be two Examination Boards, one each for B.A. and B.Sc. Examinations to be constituted as follows :

- (a) The Vice-Chancellor—Chairman.
- (b) President of the relevant Post-Graduate Council.
- (c) Dean of the relevant Faculty.
- (d) Chairmen of the relevant Committees of Moderators.
- (e) Four members appointed by the Syndicate of whom two shall not belong to the Post-Graduate staff of the University or be teachers of the affiliated Colleges in relevant subjects and two shall be teachers from affiliated Colleges.

(6) The functions of the Examination Board will be (a) to co-ordinate the results forwarded by the Committee of Moderators ; (b) to modify them, if necessary, in accordance with principles laid down by the Syndicate ; and (c) to forward the results to the Syndicate for publication.

(7) The proceedings of the Board will be subject to confirmation by the Syndicate which shall not have the power to modify the results but may refer them back for reconsideration.

**185.** We consider that re-organisation is also necessary in the method of control and organisation of the B.Com. and Intermediate Examinations. Such re-organisation, we recommend, should be considered by the Committee already appointed to report upon the broader questions of re-construction in connection with the Draft University Bill.

<sup>1</sup> The *minority* were of opinion that the Syndicate should have the power to add two members.

*Invigilation.*

186. The present arrangements for invigilation during University Examinations are not entirely satisfactory. For the Matriculation and other Examinations, held at places other than Calcutta, no fees are paid to invigilators. The present invigilation fee paid in Calcutta is Rs. 1-8 only per day and this fee does not induce the proper type of men to undertake the responsibility. This we consider to be unsatisfactory and conducive to laxity in supervision. Invigilators at Degree Examinations have serious responsibilities for which adequate remuneration should be paid. We consider that in the interests of efficient conduct of examinations it is desirable to pay such remuneration to invigilators as will attract a type of man on whom complete reliance can be placed. We recommend, therefore, that the following rates of remuneration be paid to invigilators at the different Examinations :

*Matriculation Examination.*

Head Invigilator at any centre	...	Rs. 6 per day.
Invigilator	...	Rs. 3 ,, ,,

*Intermediate Examinations.*

Head Invigilator at any centre	...	Rs. 7-8 per day.
Invigilator	...	Rs. 4 ,, ,,

*B.A., B.Sc., M.A., M.Sc., M.B. and B.L. Examinations.*

Head Invigilator at any centre	...	Rs. 10 per day.
Invigilator	...	Rs. 7-8 ,, ,,

The number of invigilators necessary should be calculated on the assumption that one invigilator is responsible for 25 candidates. The actual amount of the increased expenditure which is involved in the above proposals is indicated approximately by the following figures :

*Matriculation Examination.*

$$\frac{15,600}{25} \times 3 \times 5 = \text{Rs. } 9,360, \text{ or Rs. } 10,000 \text{ approximately.}$$

*Intermediate Examinations.*

$$\frac{6,500}{25} \times 5 \times 6 = \text{Rs. } 7,800, \text{ or Rs. } 8,000 \text{ approximately.}$$

*B.A., B.Sc., M.A., M.Sc., Law and Medical Examinations.*

$$\frac{13,000}{25} \times \frac{15}{2} \times 5 = \text{Rs. } 19,500, \text{ or Rs. } 20,000.$$

The Head Invigilators' fees will amount to approximately Rs. 10,000.

The total approximate cost will accordingly be Rs. 48,000 to Rs. 50,000 less the amount at present spent on invigilation at Calcutta centres, *i.e.* approximately Rs. 8,000.

Invigilators for the Post-Graduate examinations should be appointed by the relevant Executive Committee and for the other examinations by the Syndicate.

*Examination and Examiners' Fees.*

**187.** We recommend that favourable consideration be given to the question of granting a minimum remuneration to examiners where the number of papers is small. We consider also, as elsewhere indicated, that it is desirable to pay Internal Examiners at the same rate of remuneration as External Examiners and also to pay travelling allowances to all External Examiners for attending meetings and practical examinations in Calcutta. This travelling allowance should be payable on the basis of allowances given to members of the Senate for attending meetings.

**188.** We have recommended that for the M.A. and M.Sc. Examinations each paper shall be independently examined by two examiners. The fees payable for each such examination should be that for examining a full paper, *i.e.*, the fee should be payable in full to each.

**189.** In most Universities in the West a graduation fee is levied upon all students who take their degrees. We are doubtful as to the wisdom of initiating this system here and we consider that if it is decided to increase the income of the University through

charges levied upon candidates taking degrees, such increase of income will be better obtained by increasing examination fees, rather than by attempting to levy a graduation fee which would be difficult of realisation.

**190.** We recommend that the Registration Fee be increased from Rs. 2 to Rs. 5.

**191.** The fees payable for medical examinations are at present insufficient to cover the costs of these examinations. This is in contrast to the other examinations and should, we consider, be remedied. We recommend therefore that fees for the First, Second, Third and Final M. B. examinations should be increased from Rs. 25 to Rs. 35.

**192.** The *Majority* recommend that the fee for the Intermediate examination should be increased from Rs. 30 to Rs. 32. This will give an increased income of Rs. 13,000. The *Minority* are of opinion that the fee for the Intermediate Examination should not be increased. We do not recommend that the fees for the Degree Examinations should be increased at present but some of us consider that an increase from Rs. 45 to Rs. 48 which will bring an income of Rs. 17,000 would not inflict much hardship upon the candidates.

**193.** The increase in the Registration Fee will bring in approximately Rs. 24,000 and the increase in the Intermediate examination fees will bring in approximately Rs. 13,000. There will also be a saving on the amount at present spent on invigilation in Calcutta, i.e. about Rs. 8,000.

**194.** We also recommend that the paper-setters for the different Law Examinations<sup>1</sup> should be paid remuneration as is the case in other professional examinations. The details should be worked out by the Syndicate.

**195.** We consider that the present rates of remuneration paid to examiners in Matriculation, Intermediate, B.A. and B.Sc. Examinations are not satisfactory. We recommend that the rate fixed for the Matriculation Examination be immediately increased from 8 annas to 10 annas per paper. The rates for the other examinations should be increased as soon as financial conditions permit.

<sup>1</sup> The income from fees in 1928-29 for the different Law Examinations was Rs. 1,65,780 and the expenditure was Rs. 26,800.

*G. Scholarships and Fees.*

**196.** We consider that the present system of financially assisting students requires modification. One of the conditions essential to the award of any financial assistance should be that of proved academic merit. In our opinion a certain number of scholarships should be awarded on merit alone, while others should be awarded to those who, having proved that they have ability above the average, would have to undergo hardship, without financial assistance, in order to pursue their studies in the Post-Graduate classes. Provision is already made for the first class by the award of the Jubilee Post-Graduate Scholarships. Twelve of these are awarded each year to the students who stand first in the first Class Honours list in different subjects (it may be more than 12 if there are subjects unprovided for). There are thus in any one year 24 Post-Graduate scholars receiving scholarships of the value of Rs. 32 per mensem. We approve of the present scheme and recommend its continuance.

In addition to the Jubilee Post-Graduate Scholarships the following awards are made :

- (1) Fourteen scholarships of the value of Rs. 20 awarded to those taking Ancient Indian History.
- (2) Twenty-eight scholarships of the value of Rs. 10 awarded to those taking Indian Vernaculars.
- (3) Free-studentships, approximately 10% , in Arts and Science.

**197.** Last year there were 74 full free studentships and 70 half-free studentships in Arts. These are awarded by the Executive Committee and the financial condition of the student is a main consideration. Recommendations are made by teachers of the Department and Principals of the affiliated Colleges, where the applicants have studied, testifying to their financial condition and ability. The Committee make their awards after considering these recommendations. No minimum academic attainments are laid down. We are of opinion that it would be an advantage definitely to insist upon some minimum qualifications as being necessary.

**198.** As at present, we are of opinion that it is desirable specially to encourage studies in certain Departments by allocating scholarships to them, although we consider that the present

special provisions for Ancient Indian History and Indian Vernaculars makes it difficult to do full justice to other Departments.

We recommend that two classes of scholarships should be awarded, namely,

- (1) Scholarships awarded solely on the ground of the merit of the candidates.
- (2) Scholarships and free or half-free studentships in the award of which the financial condition of the candidates is a material factor.

The scheme outlined below embodies the above principles and we recommend that it be forwarded to the Executive Committees for detailed proposals in accordance therewith. The proposals drawn up by the Executive Committees should be submitted to the Senate for final decision. The statistics given at the end of this section (below, para. 200) will, we consider, be of value in determining the number of scholarships to be awarded and their allocation.

#### *Proposed Scheme.*

- |                                                                                                                                                                                                                                                                                                                        | Monthly cost            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| I. Scholarships awarded on merit alone :—                                                                                                                                                                                                                                                                              |                         |
| Twelve Jubilee Post-Graduate Scholarships of Rs. 32 per month to be awarded each year as at present and tenable for two years                                                                                                                                                                                          | ... Rs. 768             |
| II. Other scholarships :                                                                                                                                                                                                                                                                                               |                         |
| (1) (a) Twenty Scholarships of Rs. 24 per month, ordinarily tenable for two years, to be awarded each year to Arts students ; of these not less than 5 will be awarded to students graduating from mofussil Colleges. At least one of these twenty scholarships will be awarded to a student of an outside University. | (20 × 2 × 24) = Rs. 960 |
| (b) In awarding the above scholarships, the cases of students who have obtained Distinction should be considered along with those of Honours students.                                                                                                                                                                 |                         |
| (c) Consistent with the adoption of merit as the basis of the awards, the scholarships should be distributed as equitably as possible among the different Departments.                                                                                                                                                 |                         |

- (2) Seven Scholarships, of Rs. 24 per month, ordinarily tenable for two years, to be awarded each year to Science students. Of these not less than two will be awarded to students from mofussil Colleges. Other conditions are to be same as in (1) above  
 $(7 \times 2 \times 24) = \text{Rs. } 336$

In awarding the above scholarships the financial condition of the students will be taken into account in the case of at least 20 per cent. of the awards.

- (3) (a) Forty free studentships to be awarded in any financial year to Arts students who have obtained First or Second Class Honours or Distinction. Ordinarily six and not more than ten of these may, in exceptional cases, be awarded to pass graduates ... Rs. 400
- (b) Forty half-free studentships to be awarded in any financial year to Arts students who have obtained First or Second Class Honours or Distinction. Ordinarily six and not more than ten of these may be awarded, in exceptional cases, to ordinary graduates ... Rs. 200
- (4) (a) Fourteen free studentships to be awarded to Science students in any financial year as under (3) (a) ... Rs. 168
- (b) Twelve half-free studentships to be awarded to Science students in any financial year as under (3) (b) ... Rs. 72

The above scholarships and studentships will be awarded by the relevant Executive Committee.

199. Total value of scholarships under this scheme is as follows :

1. Jubilee Scholarships	...	...	Rs. 768
2. Arts	...	...	„ 960
3. Science	...	...	„ 336
4. (a) Arts	...	...	„ 400
(b) Arts	...	...	„ 200
5. (a) Science	...	...	„ 168
(b) Science	...	...	„ 72
			<hr/>
			Rs. 2,904

The total value of the scholarships as proposed by us is therefore Rs. 34,848 as against Rs. 31,176 under the present scheme.

*Present Awards.*

	Monthly cost.
	Rs.
1. Twenty-four Jubilee P. G. Scholarships at Rs. 32 ... ..	768
2. Fourteen scholarships at Rs. 20 ... ..	280
3. Twenty-eight scholarships at Rs. 10 ... ..	280
4. 10 % Free studentships in Arts Departments at Rs. 10 ... ..	910
5. 10% Free studentships in Science Departments at Rs. 12 ... ..	360
	2,356

*Tuition Fees.*

200. We do not feel that at present we can recommend an immediate increase of tuition fees in view of the fact that the fees are already on the same scale as in other Universities. As however, the percentage of the total cost of Post-Graduate education, which is covered by fee income, is very small, compared with the percentage in the case of under-graduate studies and Secondary Education, the majority consider that an increase is possible and should be made, provided that a similar increase is made in the Post-Graduate fees levied in the University of Dacca. This problem should, we consider, be dealt with by the Advisory Board on Higher Education the establishment of which we have recommended elsewhere. In the University undergraduate classes, the fee we recommend should be Rs. 9 in Arts and Rs. 10-8 in Science for any three subjects. Proportionate fees should be charged for a less number of subjects.

*Statistics.*

No. of students (Arts Department) ... ..	912
No. of students (Science Department) ... ..	300

No. of Scholarships, Free and Half-free studentships <sup>1</sup>		226
Total value of ditto	... ..	28,272
B.A. results, 1928, 1st Class Hons.	... ..	26
2nd " "	... ..	240
Distinction	... ..	126
Pass	... ..	1,123
B.Sc. results, 1928, 1st Class Hons.	... ..	16
2nd " "	... ..	92
Distinction	... ..	106
Pass	... ..	357

#### H. Grants for Research and Equipment.

201. The existence of the Trust Funds and the fact that they as well as the University contribute towards the equipment of laboratories and allot research grants create a difficult administrative problem. Actually the University is not spending a particularly large amount upon scientific education from its general funds. What has to be considered, however, is not the money spent from the University funds alone, but the combined expenditure from both the Trust Funds and the University. The Trust Funds were created to advance the cause of Science and to assist the University. In addition to full co-operation on the academic side as has been recommended, it is essential that there should be equal co-operation also on the financial side. It is difficult for a Committee like this to estimate definitely the actual needs of the various Science Departments. The situation in the past has been complicated by the fact that laboratories have had to be built and completely equipped as well as renovated from year to year. Grants in the budget have not always been differentiated as regards capital and recurring expenditure, and apparently no definite decision has been made as to what are reasonable recurring grants for the different Departments. From 1925-26 to 1929-30 in Physics, Pure and Applied, Rs. 1,96,000 was spent on equipment and research grants. In Chemistry, Pure and Applied, Rs. 1,98,000 was spent during the same period. Thus the Departments of Physics (Pure and Applied) and Chemistry (Pure and Applied) have, in the past five years, each been spending approximately Rs. 40,000 per year on equipment and research grants. Once laboratories are satisfactorily equipped, all ordinary

<sup>1</sup> Assuming that the number of Free studentships is equal to the number of Half-free studentships.

research should be possible with a recurring grant sufficient to cover ordinary laboratory expenses, which should in the main be confined to the replacement of apparatus and chemicals with a certain normal provision for purchase of more modern instruments. Most of the Laboratories are now reasonably well-equipped and it is essential that the University authorities should have definite information as to the expenditure which will normally be incurred in the maintenance of these laboratories as well as the normal provision for research grants. We recommend, therefore, that a Committee be constituted to investigate this question and to report to the University (1) as to the capital expenditure necessary but not yet incurred, (2) as to the amount of the annual grant required, and (3) as to the best means of effecting co-operation between the Trusts and the University authorities with regard to the grants made to individual members or teachers and to laboratories for their up-keep and maintenance. In addition to this the Committee should be requested to advise the University as to the laboratory staff, apart from teachers, necessary for maintaining laboratories. On this Committee there should be, along with teacher representatives, experts (including an Engineer) not belonging to the University staff and one or two general representatives.

#### *I. Library.*

202. The University maintains at present three Libraries—the General Library in the Darbhanga Building, the Post-Graduate Arts Library in the Asutosh Building and the Science Library at the Science College. The latter Library is divided into departmental sections which are separately maintained and supervised. We strongly recommend that the Science Library should be consolidated and housed in one large room in the Science College Building and be placed under the control of one Librarian with the necessary number of Assistants. This will result in a saving of expenditure as well as a more advantageous academic arrangement. We consider that one Librarian specially trained in Library work with one assistant should be able to manage such a Library, even if and when the Botany and Zoology sections are included.

203. It appears to us that there is a needless duplication of resources and of staff. This has resulted from the present arrangement of maintaining two Libraries in the central University Buildings. Many expensive books, only occasionally used, are purchased

for both Libraries and there seems to be no valid reason why the Libraries should not be amalgamated. We recommend therefore that the Post-Graduate Arts Library and the General Library be, if possible, amalgamated and located in one Building, and be placed under a well-trained Librarian. If this is not possible, these Libraries should be divided into two sections dealing with groups of subjects and both should remain under the control of one body. The details of the amalgamation and the staff necessary for the amalgamated Library should, we recommend, be reported upon by a special Committee, representative of the interests concerned.

### *J. Laboratories for Botany and Zoology.*

204. We are of opinion that while the Botanical and Zoological laboratories are maintained at Ballyganj, there must inevitably be restrictions upon the development of teaching and research in these subjects. The laboratories are situated in a residential house that has been adapted, as far as practicable, for teaching purposes. They are far removed from the other scientific activities of the University and students not unnaturally do not desire to travel such a distance for their studies. We recommend, therefore, that the University should immediately arrange for the construction of laboratories for Botany and Zoology on the site occupied by the Science College at 92, Upper Circular Road or on an adjacent site to be acquired by the University. The proximity of the Chemical and Physical laboratories, possibly also of the Physiological one, will be of great advantage. The capital cost necessary for the erection of these buildings should, if possible, be immediately provided and steps taken advantageously to dispose of the present buildings at Ballyganj. Whether these buildings should be sold outright or otherwise utilised after satisfying the necessary legal requirements or re-adapted as a dwelling house and rented for that purpose should be decided by the Governing Body of the Palit Trust. The erection of special laboratories for Botany and Zoology, while requiring money for capital expenditure, would relieve the University of the necessity of contributing annually a sum of at least Rs. 10,000 to the Palit Fund together with certain smaller items for menials, etc.

### *K. Capital Expenditure on Building.*

205. We feel that the needs of the University with regard to Buildings require immediate detailed investigation and report.

In the course of our enquiry the necessity for undertaking several major projects has been brought home to us, and it is essential if the progress of the University is to be satisfactory that a full and definite statement should be made as to its building requirements. We recommend, therefore, that the Senate should immediately appoint a small Committee to report fully upon the question. Without entering into detailed requirements we desire to call special attention to the following needs :

1. The erection of buildings—probably at the Science College or on some adjacent site for the accommodation for Zoology, Botany and possibly Physiology laboratories (*vide* para. 204).
2. The erection of better and more commodious buildings for the Press.
3. The provision for better arrangements for office accommodation.
4. The provision of rooms, for Heads of Departments and for students' activities—possibly by adding another storey to the Asutosh Building.
5. The provision of a satisfactory room for Senate meetings.

Re-arrangement of the Libraries as indicated in our recommendations might provide for some of the above needs.

**206** The completion of the programme of construction implied in the above will entail considerable expenditure. The Committee might consider whether part of this might be met by utilising the accumulated balances in the Asutosh Building Fund, but the greater part would of necessity have to be provided from external sources—either private endowments or Government grants. The schemes are urgent and action should be immediate. Any reports and materials dealing with any of these matters, which are already available, should be referred to the Committee for consideration and adjustment in conformity with their general plan.

## CHAPTER VIII.

### UNDERGRADUATE TEACHING UNDERTAKEN BY THE UNIVERSITY.

**207.** The University is at present providing for teaching in certain subjects for undergraduates. We are of opinion that it is undesirable that the University itself should directly undertake either Matriculation or undergraduate teaching of subjects for which there is adequate and satisfactory provision in the Calcutta Colleges and Schools. Where no such provision exists, it is, we consider, incumbent upon the University to make necessary arrangements for the study of all the subjects by such undergraduate students as desire to prepare for the Post-Graduate courses or to study a subject for its cultural value. We consider that as far as Arabic and Persian, Pali and Physiology<sup>1</sup> are concerned, the University should discontinue providing for undergraduate teaching. We recommend that the authorities of the Presidency College be requested to make adequate arrangements so as to allow students to take Pali, Geology and Physiology in the Presidency College, the fees payable should be either the rate they pay in their original College or the rate they had hitherto paid in the University Undergraduate classes. Government should be requested to make this possible. Students, who are at present reading in the University classes, will be able to pursue their studies in one or other of the affiliated Colleges. We feel, however, that it is desirable to encourage the study of Pali particularly up to the Honours standard and recommend that two scholarships of the value of Rs. 12 per month should each year be awarded by the Syndicate on the result of the Intermediate Examination, to deserving students, who intend to pursue the Honours Pali course in an affiliated College in Calcutta.

**208.** We are of opinion that undergraduate teaching should still be provided in Zoology, Anthropology and Experimental Psychology. In the latter two subjects we feel that it is parti-

<sup>1</sup> Our recommendation regarding Physiology is subject to observations made on p. 90.

cularly necessary closely to correlate the other subjects of study which an undergraduate student takes up. In Anthropology, for example, it is desirable that the student should take along with Anthropology, Zoology and History or some such similar combination, while, in Experimental Psychology, a student should necessarily read Philosophy and Physiology. The Boards of Higher Studies in Anthropology and Psychology should be requested by the Executive Committees to forward definite recommendations as to the permissible combinations for students pursuing the undergraduate course in these subjects.

**209.** The continuance of responsibility for undergraduate teaching in Commerce should, we recommend, be dependent upon the possibility of adequate provision being made elsewhere for the tuition of undergraduate students in this subject. There does not exist at present adequate provision, but we are of opinion that it could advantageously be provided at the Government Commercial Institute by an adaptation of the courses of studies in that institution. We recommend, therefore, that Government should be requested so to change the courses of studies at the Commercial Institute and so to arrange the classes that students can be admitted there and receive the necessary tuition for preparation for the B. Com. Examination. Failing the possibility of such a solution or the provision of adequate instruction elsewhere, it will be necessary to continue making provision for undergraduate Commerce teaching directly under the auspices of the University. The staff necessary for this should be reported upon by the Board of Higher Studies in Commerce and the Executive Committee and sanctioned by the Senate.

**210.** The additional staff necessary for undergraduate work is follows :

- (1) Zoology—One Lecturer on the usual grade in addition to the staff we have recommended for the Post-Graduate Department.
- (2) Anthropology—One Lecturer on the usual grade in addition to the staff we have recommended for the Post-Graduate Department.
- (3) Experimental Psychology—One Lecturer on the usual grade in addition to the staff we have recommended for the Post-Graduate Department.

These additional Lecturers together with the staff we have previously recommended should be able to provide the necessary teaching for the Pass and Honours Degrees.

**211.** The Head of the relevant Department would obviously be responsible to the Executive Committee concerned for making satisfactory arrangements for teaching the undergraduate classes within the Department. In Departments, where there are undergraduate classes as well as Post-Graduate, we recommend that the staff should be appointed for the combined work and there should be no differentiation in the manner, terms, method and conditions of appointment, control, and duties between those taking part in Post-Graduate and undergraduate work.

## CHAPTER IX.

### LAW COLLEGE.

#### *Duration of the Course for B. L. Degree and other Questions.*

212. Although the question of a possible re-organisation of the system of legal studies in the University is not within the scope of this Committee, one important point has been raised by some members in this connection to which we desire to refer. In this University the course prescribed for the B.L. degree extends to three years, while in almost all other Universities it is a two-years' course. This matter also, we find, received the attention of the Calcutta University Commission which was not in favour of any reduction in respect of the length of the period of study. The history of the development of the present system has been elaborately discussed in different portions of that report and we do not consider it necessary to recapitulate it here. We, however, suggest that this question be referred to the Faculty of Law for its careful consideration, keeping particularly in view the systems which are in vogue in other Universities in India; the Faculty should be requested to submit its report direct to the University. It was felt by some that it was undesirable that classes should be held at a late hour in the afternoon. We recommend that the questions regarding the arrangements of classes including the hours when they are to be held and the desirability of appointing whole-time teachers be referred to the Governing Body of the Law College for report direct to the University. We also recommend that the Governing Body should consider the desirability of raising tuition fees of the College.

#### *Finances of the Law College.*

213. The University Law College occupies a rather peculiar position so far as its relationship with the University is concerned. It is a College which is affiliated to the University in the way in which all other Colleges are affiliated to it. The management of the College is vested in a Governing Body over which the Vice-Chancellor presides *ex officio*. In certain respects

the College is related to the University more closely than any other affiliated institution ; for instance, the proceedings of the Governing Body are subject to confirmation by the Syndicate ; its annual budget is passed by the Senate ; for many years it has also received a special grant of 30,000 rupees from the Government.<sup>1</sup>

**214.** Although the University is paying Rs. 30,000 to this College per annum, it should be stated that the Law College annually pays back to the University about Rs. 25,000 as rents, etc. Some of us feel that the Board of Accounts should consider the desirability of removing this anomaly, although we recognise it makes little financial difference.

**215.** While recognising that the internal affairs of the College should, within the prescribed Budget limit, be left to the discretion of its Governing Body, we desire to refer to one matter which affects its financial relationship with the University. In 1925 the Governing Body introduced a Provident Fund Scheme for the benefit of the Professors of the College which was duly approved by the Syndicate. It should be remembered that at that time Government made the grant of Rs. 30,000 specifically for the Law College. We have considered the question of allowing the Professors of this College the benefit of a Provident Fund. The Principal and the Vice-Principal of the College, who appeared before us, explained that it had been customary with the Governing Body to grant gratuities to widows of Professors who died after serving the College for a large number of years. The introduction of the Provident Fund has made it unnecessary for the Governing Body to grant such gratuities. It was also pointed out that a Professor of this College worked on an average for 8 or 9 hours per week which was not exactly the work of a part-time teacher. It was further pointed out that in some other Universities the part-time Professors of the Law Department enjoyed the benefit of the Provident Fund. In the Post-Graduate Department, there are part-time Lecturers who are, however, excluded under the rules from joining the Post-Graduate Provident Fund. So far as the University Law College is concerned, we feel that although the question of starting a Provident Fund is normally a matter for the authorities of the College to decide,

<sup>1</sup> This grant, which was originally ear-marked for the Law College, has since 1929 been, with the sanction of Government, made available at the discretion of the Senate for the general purposes of the University.

in this instance the Governing Body is virtually dependent for the continuance of the Provident Fund scheme upon an annual grant made by the University. We recognise that if the College had sufficient funds at its disposal to maintain a Provident Fund for the benefit of its teachers, it might not have been necessary for the University to interfere with any decision of the Governing Body on this point. But as we have stated already, a portion, if not the whole amount, of the Rs. 30,000 may now at the discretion of the University be spent for its general purposes. While recognising that even in future it may be necessary to hand over a part of this grant to the College for its administration, we do not feel justified in supporting the continuance of the Provident Fund scheme in the University Law College, except for the whole-time teachers if that necessitates the annual grant aforesaid. In these circumstances we recommend that the Governing Body be requested to abandon the Provident Fund scheme as soon as the term of office of the Professors at present appointed terminates. This does not apply of course to the whole-time teachers.

Sir D. P. Sarvadhikary did not share in the opinion that the Provident Fund for part-time teachers should be discontinued.

**216.** Mr. J. C. Mitra desired that the points raised in his note (Appendix No. 5) should be considered by the Faculty of Law and the Governing Body of the Law College.

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## CHAPTER X.

### OFFICE ORGANISATION.

**217.** The principal officers in the University at present are

- (1) The Registrar,
- (2) The Controller of Examinations,
- (3) The Inspector of Colleges,
- (4) The Secretary, Council of Post-Graduate Teaching in Arts, and
- (5) The Secretary, Council of Post-Graduate Teaching in Science, who is also the Secretary, Governing Body of the College of Science.

Under the Registrar, there are the posts of the Assistant Registrar and the Audit Officer. The Registrar has also under his control the establishments in connection with the Students' Welfare Committee, the Calcutta Review, the Inspection of Messes, the Press and the Publication Committee and the University Engineer. The Controller has an Assistant Controller under him. Each of the five principal officers, mentioned above, has his separate establishment, each being wholly independent of the other. Besides these, there is the Law College office which is under the control of its Governing Body.

**218.** From our present investigation we exclude the office of the University Law College which is, and ought to remain, under the control of its Governing Body. The various recommendations made in this portion of our report, so far as they are relevant to the Law College office, should, in our opinion, be considered by the Governing Body and be adopted by it in administering the office under its control; action taken thereon should be reported to the Syndicate. The office of the Inspector of Colleges also is a very small section, consisting of only two assistants, who we consider ought to remain under the direct control of the

Inspector of Colleges himself. We have to deal mainly, therefore, with the question of the future control of three large branches of the University Office, namely, the Post-Graduate Departments (Arts and Science), the Controller's department and the Registrar's department.

#### *A General Principle.*

219. We consider that it will lead to greater co-ordination and more efficient management if the ministerial establishment of the different branches of the University can be placed under the control of one officer. One essential condition, however, which must be fulfilled before such centralisation can be attained, is that there should be one central executive body in the University which will enjoy powers of control and supervision over the different establishments and will be so constituted as to secure proper representation of different interests.

#### *Controller's Office.*

220. The post of the Controller of Examinations was created by the Senate in 1917. It is not necessary for our present purpose to discuss the circumstances which led the Senate to take this step. After a detailed examination of the work of the Controller's office we are of opinion that it will still be necessary to have one officer who will be responsible for the proper custody of the question papers and will also supervise the conduct of the examinations of the University. According to the present scheme, however, the Controller is an officer who enjoys a position of authority independent of the Registrar. We have very carefully considered the possibility of having the Registrar at the head and the Controller of Examinations as a Branch Officer under him who will generally remain in charge of the Examination section. We are of opinion that such an amalgamation of these two offices is possible and will secure more effective supervision and control. In the event of our recommendation being accepted, it will also effect considerable economy without any loss of efficiency. We recognise the necessity of having an officer in the University whose chief duties will be in connection with the conduct of examinations but at the same time we see no reason why the two offices, the Registrar's and the Controller's, should be kept as water-tight departments, although the same executive body is responsible for the efficient management

of both. If our recommendation is accepted by the Senate, it will be necessary for the Syndicate to take steps to readjust the duties which are now entrusted to the Controller of Examinations and are embodied as an Appendix to the University Regulations ; in making such readjustment the Syndicate should take into consideration the changed conditions as contemplated in this report, and the duties proposed to be entrusted to the Examination Committees.

#### *Audit Officer.*

**221.** So far as the Audit Officer is concerned, he should continue to remain as another Branch Officer under the Registrar subject to conditions laid down by the Senate.

#### *Post-Graduate Offices.*

**222.** We are, however, faced with a difficulty when we come to the Post-Graduate Departments. We have at present two Secretaries : one for the Arts Departments and the other for Science. Here we do not think that it is practicable or desirable at this stage, with the University constituted as at present, to place the Post-Graduate offices under the control of the Registrar. For the administration of the Post-Graduate Departments there are two Executive Committees and the officers who are acting as Secretaries to the Councils are responsible directly to these bodies. As we have observed already, complete centralisation cannot be attained unless and until there is one central executive body in the whole University. For these reasons we are of opinion that although full centralisation will be possible at a future date when the Universities Act has been altered so as to secure for the University one properly constituted central executive body, yet at present we must keep the Post-Graduate Office as a separate entity. We strongly recommend, however, that arrangements should be made with the Post-Graduate Departments so that during the Summer Vacation when the assistants in that office will have less work, help may be given from that office to the other branches of the University Office, particularly in the Examination Section, where work during that period is of a very heavy nature. The Senate should take such steps as may be necessary to give effect to this recommendation.

**223.** After carefully reviewing the work in the Post-Graduate Departments, we consider that it is both possible and desirable that the posts of the two Secretaries of the Post-Graduate Councils should be combined and the work accomplished by one Secretary. The work of the Secretary in future will be diminished owing to the creation of Heads of Departments, who will undertake certain responsibilities now falling upon the Secretaries. We also recommend that as soon as possible the clerical staff now under the control of the Governing Body of the College of Science should be placed under the Secretary of the Council and brought within the general scheme. When clerks are attached to particular Departments, this control should be exercised through the Heads of the Departments.

### *Recommendations.*

**224.** As regards the general office organisation, our recommendations, therefore, are as follows :

I. The Registrar will be the chief officer and under him there will be the following Branch Officers :

- (1) The Controller of Examinations.
- (2) The Assistant Registrar.
- (3) The Audit Officer.

The Registrar's Office should have two Superintendents, one of whom should remain in the Examination section and the other in the General Department.

II. The Inspector of Colleges will continue to remain in charge of his office as at present.

III. The Post-Graduate offices will be amalgamated and will have one Secretary at the head.

**225.** With reference to the scale of pay drawn by these officers, we make the following recommendations :

I. The Registrar's pay is at present Rs. 800-50-1,000. We do not propose a revision of pay in his case. The present incumbent is drawing a personal allowance of Rs. 150 per month which should be regarded strictly as an allowance to the present holder only.

II. The scale of pay of the Inspector of Colleges should be Rs. 750- $\frac{50}{2}$ -1,000. The Inspector of Colleges should in future be appointed for a period of ten years.

III. The present scale of pay of the other Officers and the Secretaries, Post-Graduate Councils, are as follows :

	Rs.
The Controller of Examinations ...	800-50-1,000
Assistant Registrar ...	250-25-500
Assistant Controller ...	250-25-500
Audit Officer ...	250-25-500
2 Secretaries, Post-Graduate Departments	500-50-750
	. each.

According to our recommendations, the posts of the Assistant Controller and of one of the Secretaries will be abolished.

For the remaining posts excepting that of the Controller of Examinations we propose the following grade :

Rs. 250-20-450-25-600.

For the Controller of Examinations we recommend a special grade, Rs. 500- $\frac{50}{2}$ -800, on account of his very responsible duties.

As regards the Secretary of the Post-Graduate Departments, we recognise that he will have to inspect the Departments situated in different buildings in different parts of the city and we, therefore, recommend that he should have a conveyance allowance of Rs. 75 per month in addition to whatever salary he receives.

The Senate may of course grant a special allowance to any of the above officers on any special grounds.

226. The total maximum cost which the University will incur under the present scheme and the proposed one will appear from the table given below :

	Rs.
(1) Registrar ...	1,000 plus 150
(2) Inspector of Colleges ...	1,000
(3) Controller of Examinations ...	1,000
(4) Assistant Registrar ...	500
(5) Assistant Controller ...	500
(6) Audit Officer ...	500
(7 & 8) 2 Secretaries (Arts and Science)	1,500
TOTAL ...	6,150

*Proposed Maximum.*

	Rs.
(1) Registrar ... ..	1,000
(2) Inspector of Colleges ... ..	1,000
(3) Controller of Examinations ... ..	<del>800</del>
(4) Assistant Registrar ... ..	600
(5) Audit Officer ... ..	600
(6) Secretary, P. G. Department	600+75
TOTAL ... ..	4,675

227. We recognise that the scheme proposed above cannot be given effect to until the terms of appointment of the present incumbents expire in 1931. To those officers whose services will not be continued in accordance with our scheme, we recommend that the Senate should grant pension or gratuities taking into consideration the period for which they have served the University. Further, if any of the present incumbents is re-appointed to a post under the new scheme in a reduced grade, we recommend that the Senate should either sanction a special personal allowance to him which will lapse as soon as he retires from the service of the University or grant him compensation in lieu of diminution of salary. The allowance should be such as to make his salary equivalent to what he now receives.

*Method of Appointment.*

228. At present the Registrar, the Inspector of Colleges and the Controller of Examinations are appointed by the Senate on the recommendation of the Syndicate. The Assistant Registrar and the Audit Officer are appointed by the Syndicate. The Secretaries of the Post-Graduate Councils are appointed by the Senate on the recommendation of their respective Councils. We consider that the present method of appointing the Registrar, the Inspector of Colleges and the Controller of Examinations should be continued. The Assistant Registrar should be appointed by the Syndicate. The Audit Officer should be appointed by the Senate on the recommendation of the Syndicate. In making the recommendation the Syndicate should consult the Board of Accounts. The Secretary of the Post-Graduate Department should be appointed by the Council subject to confirmation by the Senate. If the proposed

amalgamation of the Councils does not take place before the next appointment of the Secretary, the appointment should be made at a joint meeting of the two Executive Committees.

*Ministerial Establishment.*

**229.** In 1925, the Syndicate introduced the following five grades,

300-10-350,  
200-10-300,  
100-10-200-10-250 with an efficiency bar at 200,  
60-5-100-5-150 with an efficiency bar at 100,  
40-5-80-5-120 with an efficiency bar at 80,

in place of the following grades,

200-10-300,  
150-10-200,  
100-10-150,  
75-10-125,  
60-10-100,  
50-5-80,  
40-4-60.

It will appear that although the five grades introduced in 1925 were on the whole better than the grades they replaced, yet the scheme did not ensure the advantages of a time-scale pay whereby the assistants could receive their increments irrespective of vacancies. We propose that there should be two sets of time-scale salaries as follows :

40-5-80-5-150, with an efficiency bar at 80,  
100-8-180-10-250, with an efficiency bar at 180.

Assistants already in the grade 100-10-200-10-250 should continue to draw their annual increment of Rs. 10 as at present.

**230.** At present the Superintendent of the Registrar's department and a Senior Assistant in the same office are in the grade 200-10-300. When a vacancy arises in the latter post we recommend that it should be filled up by the appointment of an assistant in the lower grade 100-8-180-10-250.

**231.** The scale of pay of the Superintendent of the University Press is now 300-10-350 ; in view of the specially responsible and technical nature of his duties we recommend that in future it should be 200-10-400.

**232.** We recommend that the future incumbents of the posts of Superintendent of the General section, Superintendent of the Examination section and the Inspector of Messes should be placed in the grade 200-10-300 and that a special allowance not exceeding Rs. 50 should be payable to the Superintendent, Examination section, and a conveyance allowance of Rs. 50 (as at present) to the Inspector of Messes. The present incumbents should continue to receive salaries according to their present scales.

**233.** We consider that the presence of a certain number of shorthand typists whose short-hand services are utilised will considerably facilitate the discharge of business. We therefore recommend that an allowance of Rs. 25 per month should be granted by the Syndicate to not more than 3 assistants whose special proficiency in shorthand is certified by the Registrar.

**234.** We have indicated above our general opinion as regards the revision of the present scales of pay. Obviously it is not possible for us to consider individual cases, some of which have been referred to us by the Syndicate. If the general scheme outlined in this report is adopted by the Senate, it will be open to the Executive Body concerned to consider individual cases and remedy grievances, if there are any.

**235.** Before an assistant is allowed to pass an efficiency bar, the Registrar should submit a confidential report to the Syndicate; there should be a right of appeal to the Syndicate by an assistant when the Registrar is unable to recommend him as eligible for passing the bar.

#### *Office System and Adequacy of Staff.*

**236.** In the course of our investigations of the detailed work in the various University offices we have felt that the procedure of work in the different sections may be harmonised and simplified to a certain extent by the introduction of measures which it is not possible for us to indicate fully at this stage. In Appendix No. 8 the reorganisation of the office system is dealt with in two notes by Mr. J. C. Mitra. We recommend that the Syndicate and the other Executive Bodies be requested immediately to consider them and take such action as may be necessary in accordance therewith. The second note is meant specially for the consideration of the Governing Body of the College of Science. Before the introduction of

the system recommended in this report, it is not possible for us definitely to estimate what difference, if any, in the clerical requirements the introduction of the system will entail. We consider, however, that the staff existing at present will be sufficient for the purpose of carrying on the administrative work of the University in all its branches. After the initiation of the measures of co-ordination and the proposed office system the heads of various branches and the Registrar will be in a position definitely to advise the University upon the clerical assistance which will then be required in the different offices. Our scheme of amalgamation of the Registrar's and the Controller's offices will, we trust, lead to greater co-operation as well as greater economy. Some assistance will also be available during the Summer Vacation from the Post-Graduate Office. We anticipate it will in future be unnecessary for the Syndicate to appoint so many temporary assistants for 4 or 5 months every year to cope with the work in the Examination section.

#### *Accounts Section.*

**237.** Necessary provision should be made for the appointment of a trained auditor in the Accounts Branch for checking the detailed calculations of all the piece-rate bills which are at present not audited at all. This is very important in view of the large amount of expenditure involved and of the fact that the calculation is left entirely to one Computer in the University Press who prepares all such bills. The Syndicate should settle this question in consultation with the Board of Accounts. Arrangements should also be made by which the Audit Officer will be in a position to undertake a test check of the accounts and Stock Registers of the various departments of the University.

**238.** After all the rules relating to leave, accounts procedure, Provident Fund, etc., are introduced the question of the strength of staff of the Accounts Branch should be settled by the Syndicate in consultation with the Board of Accounts.

#### *Junior Assistants.*

**239.** There are five posts of Junior Assistants in the University—3 in the University Library, 1 in the Book Depot and 1 in the Post-Graduate Library. We consider that they should not be regarded as regular members of the clerical staff. We are very

doubtful whether these posts are at all necessary. Part of their work at any rate can be done by the ordinary members of the staff. When vacancies arise in these posts, we recommend that the authorities concerned should replace them, if necessary, by intelligent English-knowing duffries.

*University Library.*

240. In the University Library in particular retrenchment should be effected as vacancies arise in the posts of junior assistants as indicated above. After a detailed examination of the work in this section we feel further that work here can be carried on efficiently even if the post of one permanent assistant in grade is retrenched. This we recommend should be considered when the first vacancy arises in this section.

*University Press.*

241. A note on the University Press will be found in Appendix No. 8. We recommend that the Press and Publication Committee should consider the proposals contained therein and give effect to them as far as possible.

242. During the last few years, mainly through the efforts of the present Assistant Registrar, the University Press has been reorganised on an efficient basis and we readily recognise the value of such services. At the same time, we feel it would be desirable to relieve him of detailed control to a certain extent so that he may take a larger share in the general administrative work of the Registrar's Office which, under the reorganised scheme proposed above, will be of an arduous nature. We feel, moreover, that in future it will not be necessary for him to exercise that detailed control and supervision over the working of the Press which was obviously necessary during the period of transition. We recommend therefore that the Superintendent of the Press should be given larger responsibility and powers of control and allowed a definite status, so far as the final consideration of questions relating to the Press is concerned. With regard to the technical work of the Press, we recommend that the Superintendent should be directly responsible to the Press and Publication Committee. One way of achieving this will be to ask the Superintendent to attend meetings of the Press and Publication Committee. The Assistant Registrar should act as Secretary to this Committee. He should exercise such powers of supervision

over the Press and Publication department as may be delegated by the Registrar. In this report we are not indicating the exact distribution of work in this connection ; this we recommend should be undertaken by the Syndicate through the Press and Publication Committee.

**243.** We have elsewhere recommended that the problem of providing the Press with suitable buildings should be treated as urgent. In addition to the question of erection of buildings there are others which need determination. At the present moment the Press is responsible for printing work in connection with the Post-Graduate Departments and is required to execute this work without any charges or accounts being debited to the Departments concerned. We recommend that in future all demands which are made upon the Press should be charged for in accordance with scheduled rates and should be debited to the respective Departments.

**244.** The Superintendent should keep an account of the market value of all work done and should submit an annual statement embodying the total value of the output of the Press and showing the depreciation of machines and stock together with any capital expenditure incurred. The Press and Publication Committee should then prepare an annual report for submission to the Syndicate in which the total expenditure including depreciation, etc., should be shown against the total receipts (including the value of all work done). The annual report should also contain such suggestions for improvement as may be considered desirable. The report should be in such a form as to make clear the financial effect of maintaining the Press considered as a business concern.

**245.** We recommend also that it should be definitely laid down as to what authorities are empowered to requisition work from the Press.

**246.** We suggest that the question of granting overtime allowance to the Printer and such other assistants in the Press as have to work regularly outside office hours should be considered by the Syndicate.

*Calcutta Review Office and Students' Welfare Department.*

**247.** We are not making any recommendation as regards the staff in the Calcutta Review Office and the Students' Welfare

department, but we recommend that these establishments should be under the general control of the Registrar. The former is a small establishment and its future management has already been referred to a special Committee of the Syndicate. The Syndicate has already accepted a proposal made by the Students' Welfare Committee to retrench three posts on the clerical staff. We understand a Sub-Committee of the Students' Welfare Committee is considering how reduction should be effected. We feel that the whole question of the future policy and scheme of work of the Students' Welfare department is one which requires separate investigation and this we recommend should be undertaken by a Special Committee at an early date. The question of the future policy and organisation of the Calcutta Review should, we recommend, be considered by a Special Committee.

#### *Office Accommodation.*

**248.** The present arrangements for the accommodation of the staffs of the different branches of the University Office are not satisfactory. An improvement in this respect is essential to ensure proper working and supervision. This is a matter of great urgency. We have recommended elsewhere that this should be considered by a Special Committee.

#### *Age of Retirement.*

**249.** We consider it necessary that there should be a definite age of retirement applicable to all administrative officers and assistants in the University. We therefore make the following recommendation :

Officers and assistants will retire ordinarily at the age of 55. The Syndicate or the Executive Body concerned may, by a special resolution, where it is in the interests of the University, allow an officer or an assistant an extension of service of one year at a time up to his 60th year. In no case should an officer or assistant be allowed to remain in service after he is 60 years of age.

*Rules regarding Leave, Recruitment and Discipline.*

250. We have considered the desirability of adopting definite rules regarding leave, recruitment and discipline and we make the following recommendations :

I. LEAVE RULES.

*Leave earned.*

1. Leave on full pay, equivalent to one-ninth of the period spent on duty, shall be earned by every assistant.

*Note.*—Period of duty is the total period of time spent in the service of the University less leave taken, excluding short leave.

2. Leave due to an employee is the amount of leave earned, less the amount of leave enjoyed with allowance. In making this calculation leave on half pay is taken as equivalent to leave on full pay for half the period of leave on half pay.

*Leave Admissible.*

3. The maximum amount of leave on full pay that can be granted at one time is limited to four months provided the amount is due. Such leave can be extended if, on the production of a medical certificate from a registered medical officer, the Syndicate is satisfied that the leave is urgently necessary, by such period on full pay as may be due, but not exceeding four months.

4. Leave on medical certificate on half pay may be granted for a period not exceeding three months at a time when sufficient amount of leave is not due to the employee. Such leave may be further extended on half pay on medical certificate, provided the total absence under this rule does not exceed six months at any one time. Any portion of the leave under this rule may be taken on full pay to the extent of the amount of leave due to him as calculated under Rule 2. The total amount of leave on half pay that may be granted to an employee under this rule is limited to six months in five years and to not more than two years in the whole course of his service.

5. Leave on urgent private affairs may be granted on half pay when a sufficient amount of leave on full pay is not due to

an employee, provided the total period of absence does not exceed three months. Such leave on half pay is limited to six months in the whole course of one's service.

6. Leave without pay may be granted for such periods as the Syndicate may consider necessary.

7. Ordinarily, except on medical certificate, leave on full pay under Rule 1 cannot be granted before the expiry of six months from the date of return to duty from such leave. But the Syndicate may in exceptional circumstances relax this rule.

8. Leave cannot be claimed as a matter of right and the Syndicate reserves full power to refuse or revoke any grant of leave even when it is due if the exigencies of the service require it.

#### *Leave Allowance.*

9. Leave allowance should be calculated on the amount of pay drawn by the employee on the date he proceeds on leave. Any increment which accrues in the course of the leave can only be effective from the date of return to duty. The next increment will be due on the normal date.

10. Leave with allowance counts as service for the purpose of increment and leave without pay does not count as service for such purpose.

#### *Authority to grant Leave:*

##### *Short Leave.*

11. Short leave not exceeding twelve days in the course of each University year may be granted at the discretion of the Registrar subject to the condition that such leave should not ordinarily exceed five days at a time.

12. Leave other than short leave will ordinarily be granted by the Syndicate except that the Registrar will have the power to grant leave not exceeding one month provided the work can be carried on without employing any temporary assistant.

13. The present rules about compensation leave will not be affected by these rules. Compensation leave is not to be regarded as part of ordinary leave.

*Rules applicable to Officers.*

The above rules will also be applicable to all administrative officers in the University.

The Registrar will grant short leave to the Branch Officers under him. The Vice-Chancellor will grant similar leave to the Registrar and the Inspector of Colleges. The Presidents of the Post-Graduate Councils in consultation will grant short leave to the Secretary.

## II. RECRUITMENT RULES FOR MINISTERIAL STAFF.

1. No one who has not passed the Matriculation Examination of the Calcutta University or an equivalent test held by any other authority will be eligible for appointment in the clerical service of the University and to a post the minimum starting pay of which is Rs. 40 or more.

2. Whenever a permanent vacancy arises, the Executive Body concerned will issue advertisements inviting applications provided that two-thirds of such vacancies may be filled by the relevant authorities by promotion from the lower grade. In such cases advertisements will be issued inviting applications for filling up the vacancy in the lower grade.

*Note.*—Assistants in the lower grade will not be debarred from applying for appointment to a post in the higher grade.

3. Every candidate should submit his application in a printed form which will be obtainable from the University office.

*Note.*—The form should contain separate columns to show the academic qualifications of the candidate, the year in which he passed his University examinations, his age, and previous office experience, if any.

4. Each application should be accompanied by two certificates of good character and respectability from responsible persons, preferably one from the head of the institution where he was last reading or from his employers if he is in service.

5. Such application will be scrutinised by a Staff Selection Committee consisting of two Members appointed by the Syndicate, and the Registrar.

*Note.*—In cases of vacancies in the Post-Graduate Office (including the Science College) and the Law College, the Committee will be appointed by the relevant executive authority and

the Secretary or the Principal of the Law College, as the case may be, will be a member of the Committee. The Registrar shall also be an additional member of the Committee so as to secure proper co-ordination.

6. The Committee may, after interviewing selected candidates, hold a competitive examination; the subjects for such examinations will ordinarily be precis writing, drafting, arithmetic or such other subjects as may be prescribed to test the general or special knowledge of the candidate.

7. The executive authority concerned, on a report from the Committee, will make the appointment.

8. Each candidate should be appointed on probation ordinarily for six months and a special report should be submitted to the Syndicate or the relevant executive authority about his regularity in attendance, diligence and efficiency before he is confirmed.

9. Before confirmation each candidate should be examined by a Medical Officer appointed by the Syndicate who should grant a certificate of fitness for appointment in the University.

10. The Selection Committee, in addition to making a definite recommendation with regard to a particular appointment, will also report the names of other candidates whom they consider qualified and a panel of such names will be kept in the University office. Appointments of temporary assistants will as far as possible be made from among the names contained in this list.

### III. DISCIPLINARY RULES.

1. Each employee on arrival in the office should sign the Attendance Register noting the time of arrival.

2. A red line should be drawn by the Assistant in charge across the page against the name of those who are not present in office at 11-5 A.M. and each assistant on his arrival will note the time of arrival on the red line under his signature. At 11-15 A.M. the register should be sent to the Branch Officer and assistants arriving after this hour should sign the attendance register and insert the time of arrival before the Branch Officer.

3. Three days' late attendance after 11-15 A.M. and before 12 A.M. within one month will entail forfeiture of one day's leave.

Cases of those who come later than 12 A.M. will be dealt with specially and ordinarily they should forfeit one day's leave for two days' such late attendance within one month. Those who attend after 1 P.M. should be treated as on leave for that day.

*Note.*—(a) The rules about late attendance will not apply to cases where assistants have to attend in the morning.

(b) The rules about late attendance will not apply to such assistants as may have obtained previous permission of the Registrar to attend office at a later hour in view of any special circumstances.

(c) In special cases the above rules may be relaxed at the discretion of the Registrar.

4. Columns should be provided in the Attendance Register to show the number of days of leave thus forfeited which will be debited to the leave account.

5. No one will be allowed to absent himself from the office without obtaining previous sanction of the Registrar on an application submitted to him the previous day or earlier.

6. If under unavoidable circumstances this is not found possible, the assistant should write to the Registrar on the day on which he absents himself explaining the circumstances that prevent him from attending office.

7. An assistant will be liable to have his pay for the day forfeited if he is absent without leave or immediate report; in case of frequent defaults his increments will be liable to be stopped by the Syndicate on a report from the Registrar.

8. When an employee is prevented from attending office on account of any infectious disease in his house, an application for leave should be at once sent to the Registrar and the notice of the Health Officer should be forwarded to the Registrar as soon as possible. The certificate of freedom from infection should ordinarily be produced before he is allowed to attend office. When the assistant himself suffers from such disease he will have to take leave under the leave rules. Where the absence is due to the prevalence of the disease in his house, he will be granted special quarantine leave by the Registrar.

9. A confidential report file will be maintained for each assistant by the Branch Officer in which annual reports about regularity of attendance, diligence and the manner in which his duties are discharged will be entered. All defaults which will

be entered in this roll should be intimated to the assistant concerned at the time of such entry. The file will be put up before the Registrar when an increment becomes due. The Registrar will record his sanction to the grant of the increment in this register. If the Registrar proposes to withhold any increment on account of an unsatisfactory report the circumstances will be communicated to the assistant concerned so that he may make any representation, if he so chooses, before final orders on the matter are passed by the Syndicate.

*Recommendations applicable to all Departments.*

**251.** The various powers proposed to be entrusted to the Syndicate and the Registrar in this chapter will be exercisable by the relevant Executive Committee and the Secretary, so far as the Post-Graduate Office is concerned, and by the Governing Body of the University Law College and its Principal, so far as the Law College Office is concerned. The Governing Body of the Science College will also apply the rules, as far as possible, to assistants who serve under its control. When full centralisation is effected, the Senate will determine which body or bodies, officer or officers, will exercise these powers.

## CHAPTER XI.

### FINANCIAL CONTROL.

**252.** After considering a Note submitted by the Board of Accounts (*vide* Appendix No. 7) we are of opinion that it will be of real advantage to the University if in addition to the present Board of Accounts, a Finance Committee is established which will work in close co-ordination with the former body. As far as audit and purely financial advice and control are concerned, the present Board has rendered invaluable service. We feel, however, that it is necessary to establish in the University a representative body, whose advice upon the urgency and desirability of proposed expenditure should as far as possible be authoritative. The present body has not been constituted for this purpose. We recommend therefore that in addition to the present Board of Accounts, there should be established a Finance Committee constituted as follows :

- (1) Chairman of the Board of Accounts.
- (2-3) Other members of the Board of Accounts.
- (4-5) Two members appointed by the Syndicate, neither of whom shall be teachers of the Post-Graduate Departments and not more than one of whom may be a member of the staff of the Law College.
- (6) One representative appointed by the Executive Committee, Post-Graduate Council in Arts.
- (7) One representative appointed by the Executive Committee of Post-Graduate Council in Science.

**253.** The functions of this Body should be as follows :

- (1) To consider and make recommendations to the Senate, through the Syndicate, upon all proposals involving new expenditure, after considering the report of the Board of Accounts.

- (2) To prepare the Budget in its final form for submission to the Senate, through the Syndicate, after considering proposals of the Board of Accounts.
- (3) To report upon any matter which may be submitted to it for opinion.

The quorum for this Committee should be four including at least one member of the Board of Accounts.

**254.** We recommend also that the Board of Accounts should retain all its present powers, save and except such modifications as are necessary to make the above scheme possible. It should consist as at present of three members, but we recommend that none of these three members should be a member of any spending department. The Chairman should be appointed by the Senate and should be designated Treasurer.

**255.** Detailed rules for giving effect to the above recommendations should be framed by the Syndicate and the Board of Accounts for the consideration of the Senate.

## CHAPTER XII.

### MISCELLANEOUS.

#### *A. Co-operation of the University with other Educational Agencies in the Province.*

256. While we are convinced that the University must preserve complete autonomy in determining its policy and in providing facilities for education, there are, we feel, certain problems for the solution of which co-operation between the Universities of Calcutta and Dacca and Government is desirable. Such problems may include the provision of teaching in subjects which could be taught more advantageously, if there were greater co-operation between both Universities, and in which possibly the help of organisations controlled by Government or other agencies would be valuable. As an illustration of the type of subject coming under this head, we may mention Agriculture and Geology, etc. There are certain other problems affecting the income of the Universities which also would probably be better solved by mutual co-operation and the adoption of a uniform policy. Fees for examinations, examiners and tuition fees are included under this head. We do not suggest that the University should be in any way bound by deliberations of external bodies with regard to its internal policy, but we do feel that there is nothing to lose and there may be considerable gain if such co-operation as we recommend can be effected. In order to give effect to this suggestion we consider that a co-ordinating Advisory Board which will consider problems of Higher Education and the possibilities of co-operation between the two Universities in the Province and Government should be established. The exact constitution should be decided later when the scheme has been approved of by the bodies concerned.

257. We suggest also that the Executive Committees should be requested at an early date to consider the question of appointing a Board for co-ordinating research within the University.

*B. Financial Assistance to the Affiliated Colleges.*

258. There was a general consensus of opinion amongst the witnesses who gave evidence to us that the standard of attainment of the average graduate is not such as to make it possible to reach standards which could otherwise be attained in the Post-Graduate courses. Post-Graduate studies cannot be entirely separated from undergraduate ones and the efficiency with which the Colleges are organised and maintained inevitably reacts upon the Post-Graduate studies. It was not possible for us to analyse in detail the many problems affecting the Colleges and their teaching, although we consider that these are of such urgent nature as to demand immediate solution. It is clear to us, however, that finance is one of the main factors adversely affecting the majority of the affiliated colleges. The University is at present receiving considerable income from the examination fees of students who come into the Colleges and we feel that it would help considerably in establishing a greater unity of purpose and effort, if the University were enabled materially to assist the Colleges by financial help. The University is not in a position to do this at present, but we feel that it is incumbent upon us strongly to recommend to Government that they should investigate the question of financial assistance to the affiliated Colleges, so that a more equitable system of distribution of grants to the Government and Non-government Colleges than is at present in vogue should, if possible, be introduced. Until it is possible to pay the teachers of the affiliated Colleges higher salaries than they receive at present and to organise more efficiently healthy corporate activities amongst the students outside their regular academic work, there is little chance of material improvement in the standards attained in the ordinary degree examinations.

*C. Three Years' Honours Course.*

259. A few witnesses who gave evidence before us recommended the introduction of a three years' Honours Course in the place of the present two years' one. There was a division of opinion as to the advisability of initiating such a scheme and we feel that it introduces complications of such a nature that pending the settlement of the questions of academic control and the institution of a common academic authority within the University, the consideration of the problem should be postponed.

*D. Building Supervision.*

**260.** We have received two notes dealing with the supervision of University Buildings. These are included in the Appendix (No. 9, I and II) and we recommend that they should be considered by the Syndicate and the Committee on Buildings the establishment of which we have advocated.

*E. Changes in the Regulations.*

**261.** It is manifest that the acceptance of some of our recommendations will require changes in the Regulations. After the principles indicated in our report are accepted by the Senate, the Syndicate should take steps to formulate specific proposals so as to ensure the necessary changes in the Regulations.

*F. Financial Effect of the Proposed Scheme.*

**262.** A note dealing with the financial effect of our main recommendations has been drawn up by a member of the committee and is appended at the end of this report. Before our report is considered by the Senate, the Board of Accounts is being requested to submit a statement dealing with the financial aspect of our proposals.

W. S. URQUHART.  
 H. E. STAPLETON.\*  
 NILRATAN SIRCAR.\*  
 HERAMBACHANDRA MAITRA.\*  
 DEVAPRASAD SARVADHIKARY.\*  
 UPENDRANATH BRAHMACHARI.\*  
 F. X. CROHAN.  
 GEORGE HOWELLS.\*  
 B. C. RAY.\*  
 CHARUCHANDRA BISWAS.\*  
 J. C. MITRA.\*  
 SYAMAPRASAD MOOKERJEE\*  
 ADITYANATH MUKHERJEE\*  
 S. RADHAKRISHNAN.\*  
 JADUNATH SARKAR.\*  
 J. N. MUKHERJEE.\*  
 M. AZIZUL HUQUE.\*  
 WALTER A. JENKINS.\*

SENATE HOUSE,  
 Calcutta, 20th September, 1929.

\* Subject to dissent.

## NOTES OF DISSENT.

## I

NOTE OF DISSENT BY MR. H. E. STAPLETON AND DR. W. A. JENKINS.

We have signed the report, and agree with its main findings, subject to the following reservations:—

1. We dissent from the recommendation on the constitution of the Selection Committee for Professors and Readers and consider that the three experts to be nominated by other Universities should be replaced by

(a) One expert nominated by another University chosen by the Syndicate,

(b) Two members chosen by the Chancellor after considering the recommendations of the Vice-Chancellor.

2. Although we agree that, with the present standard of attainment and the extent of knowledge connoted by the B.A. and B.Sc. degrees, it is impossible materially to alter the system of teaching provided for Post-Graduate studies, yet we consider that the ultimate aim of the University should be to create real Post-Graduate Studies involving a considerable amount of independent thinking and research. This at present is only possible with a few students. The object of the University should be to make it general in the Post-Graduate Department. When this is practicable by a considerably enhanced degree standard a reduction in the number of teachers necessary for formal Post-Graduate teaching will be possible.

H. E. STAPLETON.  
W. A. JENKINS.

October, 29, 1929.

## II

NOTE OF DISSSENT BY SIR NILRATAN SIRCAR, PROFESSOR HERAMBACHANDRA MAITRA, SIR DEVAPRASAD SARVADHIKARY, DR. BIDHAN CHANDRA ROY, MR. SYAMAPRASAD MOOKERJEE AND PROFESSOR S. RADHAKRISHNAN.

I. We differ from our colleagues on certain points and consider it necessary to write this note of dissent. It will appear that in several cases our dissents have been recorded in the body of the report itself and it may not therefore be necessary to deal with all of them in this note. We shall first refer to certain general principles and then mention some of the important points on which we have differed.

*General Observations.*

II. We desire to record our disapproval of the merely arithmetical basis of calculation which the *majority* have adopted in determining the number of teachers required for each department. In several cases it will be noticed that the number of hours of lecture per paper and the number of papers required to be dealt with have been more or less arbitrarily fixed. The number of existing groups has been reduced without reference to experts and even the papers allotted to each group have been altered from department to department. To such modified schemes the method of arithmetical calculation has been applied, resulting, as was anticipated, to a reduction of staff in some cases.

Further, it has been unfortunate that the statistics have been collected for one year only, although conclusions of far-reaching consequence have been arrived at on their basis. The number of students in a particular department might have been small in 1928-29 and the necessary staff has been determined in reference to that number. The dangers of such calculations are obvious and can be well appreciated by a reference to the department of English. Here the staff has been reduced on the main ground that two sections are no longer necessary as the number of students in the 5th year in session 1928-29 was only 143. This year the number has gone up to 185. The total number was 242 last year and it is 308 this year. Thus, while on the basis of 242 students, the abolition of two lectureships might be justified, this year's new admissions largely alter the situation. While we do not ignore the fact that the report contains a recommendation that temporary appointments may be made when the number of students would appreciably in-

crease, we hardly regard it as fair and equitable that a whole-time lecturer who has served the University for ten years or more should be turned out to-day and then the next day his place should be taken by a temporary teacher, who, to say the least, cannot be expected to have the necessary experience, however high his academic qualifications may be.

In Economics also there has been a large increase in the number of new admissions this year.

*Staffs for the various departments.*

III. As regards the staffs recommended for the various departments, we consider it necessary to press for an additional whole-time lecturer in English for the reasons stated above. In Sanskrit also, we feel it incumbent to press for the appointment of two whole-time lecturers, one in grade and the other outside the grade. In our University we have now a most distinguished staff in Sanskrit which contains brilliant exponents of both the Western and the traditional schools of thought. Here too, the numbers of groups and papers have been reduced and the staff has been considerably cut down. The same observations apply to the department of Ancient Indian History and Culture, a department which is a special feature of this University and the workers in which have by their published researches and independent investigations received well-merited recognition from authorities both in India and abroad. Here we would unhesitatingly urge the appointment of an additional lecturer in grade which will enable the department to carry on its work and aim at further progress.

In view of the highly specialised nature of the subjects dealt with in the department of Pure Mathematics, we would recommend the appointment of an additional lecturer in grade in this subject. The importance of a subject is never to be determined by the number of students that it happens to attract. This is and must be the essence of all post-graduate schemes.

We regret to observe that adequate justice has not been done to the Biological departments.

The staff recommended for Zoology, *viz.*, one professor, 2 whole-time lecturers, 1 part-time lecturer and 2 assistant lecturers, will not be quite adequate. For the undergraduate classes alone a staff of two whole-time lecturers and at least two assistant lecturers will be required to teach the two pass and two honours classes, both theoretically and practically. Over and above these, there are the M.Sc. Classes, theoretical as well as practical. Individual attention has also to be paid to

research work taken up by students who offer theses. The addition of one lecturer is essentially necessary.

Having regard to the unique importance of Zoology as the basic science for most of the advanced scientific subjects like Physiology, Anthropology, Sociology, Psychology, etc., one of the lectureships should be raised to a Readership.

Next, for Botany also, we do not consider that the addition of only an assistant lecturer to the existing staff of one professor, one whole-time lecturer and two part-time lecturers will make it sufficient for the needs of the case. The addition of another lecturer, preferably a Reader, is necessary.

#### *Location of Biological laboratories.*

IV. Then, the location of all the Biological laboratories in or near the Science College premises is a proposal that commends itself to every well-wisher of scientific studies. Strenuous efforts should at once be made to attain this most desirable object at an early date. It is only in this way that Calcutta can make up the loss that has been caused by neglect of Biological studies through several decades.

#### *Physiology.*

V. We regret that the Committee has not even taken the trouble of formulating the needs of the Physiology department in detail. The proper development of the department requires, as admitted by the Committee itself, close co-operation with other biological and chemical departments. We are of opinion that steps should be taken immediately for the concentration of the different biological laboratories in the vicinity of the Physical and Chemical laboratories of the Science College. The proposal of transfer of the Physiology department to the Presidency College even as a temporary arrangement will not be conducive to the best interests of the physiological department. It will not be easy for a Government College to maintain a department under the guidance and control of the Post-Graduate Department of the University. Smoothness of working may be affected. Moreover, even if the transfer takes place, it would mean additional fresh capital and recurrent expenditure in the Presidency College in order to do adequate justice to the subject. There is no assurance about such expenditure as yet.

We consider therefore that the transfer is inadvisable, and recommend that the alternative scheme should be given effect to as soon as possible. For the present, the Senate may sanction

the continuance of the existing teaching and laboratory arrangements with the addition of another whole-time lecturer to the staff.

### *Agriculture.*

VI. • We are of opinion that the Committee should have more carefully dealt with the problem of agricultural education in Calcutta. It is not a question immediately and directly connected with the Post-Graduate Department. But we feel that the study of this important subject should be taken up by the University without any further delay. Schemes had been framed for agricultural studies several years ago but they could not be given effect to for want of funds. The University has, however, accepted certain endowments for organising the study of some agricultural subjects. There is, moreover, a very rich endowment for agricultural studies for Rajshahi which would not have been left unutilised if the University had made up its mind to organise undergraduate teaching in Agriculture. We are therefore strongly of opinion that both undergraduate and post-graduate teaching of Agriculture should be recognised and properly organised by the University. We do not think that the University can expect any share in the generous provisions for Agricultural Studies recently made by the Government of India unless there is a regular working department of Agriculture under the University. We hope that a part of the Government grant will be given to the Calcutta University for organising this important department which is essential for the welfare of the people of Bengal.

### *Heads of Departments*

VII. With regard to the recommendations relating to "Heads of Departments," it should be borne in mind that, while it is necessary to ensure regularity and efficiency of work, it is very desirable to avoid introducing the tone and temper of a bureaucracy on the academic side of University administration. After teachers have been carefully chosen, they should be placed under a system which may create an atmosphere of comradeship among them, the member of the staff who is to exercise general supervision over their work being *primus inter pares*. He should be designated Chairman, and the duties assigned to him in clauses 3 and 5 of para. 190 should be performed by the Board of Higher Studies.

• We feel that for the purpose of exercising control and supervision it would be far better to have one Principal for each of the Arts and Science Departments than to set up a Head in every department of studies from amongst teachers. Hitherto the members of the teaching

staff in each department in the Calcutta University have been, more or less, on the same status and footing. The sudden introduction of a new system under which the majority of teachers in a department would have to submit to a strict control exercised in many cases by one of their old colleagues, may give rise to unnecessary friction. This type of organisation, which may be necessary in an institution consisting of undergraduate classes, is not likely to be suitable for a purely post-graduate body. The proposed control over all expenditure vested in the Head of the Department is likely in particular to give rise to difficulties in research and specialised work. We are also of opinion that the admission of students should be in the hands of a small committee instead of an individual like the Head of the Department.

#### *Executive Committees.*

VIII. With regard to clauses 5 and 6 regarding the re-constitution of the Executive Committees, we are of opinion that the representatives, selected under these heads, must have appropriate qualifications.

#### *Lecturer's Grade.*

IX. As regards the different grades proposed, we would have liked to see the lecturer's grade raised from 200-25-500 to at least 200-25-600. A compromise was arrived at in this connection and the number of Readers was increased considerably. We do not therefore press for the higher grade now, although we feel that even the larger number of Readerships recommended will hardly enable the University to accord full recognition to so many distinguished lecturers who are on its staff.

#### *Readerships.*

X. No Readership has been allotted to the Science departments, and we feel at least one should be attached to each of the departments of Physics, Chemistry, Applied Mathematics and Zoology.

#### *Constitution of Selection Committees.*

XI. We are against the nomination of members of Selection Committees by the Chancellor. A Senate which consists of eighty members nominated by the Chancellor should certainly be trusted to constitute its Selection Committees in a manner which will secure the confidence of Government. The provision for securing the presence of as many as three outside experts, nominated by other Universities or institutions, on the Selection Committees for

the Professorships and Readerships is a move in the right direction. The University will profit by the presence of these experts who, it is expected, will be entirely free from local bias.

The introduction of communal representation in the constitution of the Selection Committees for lectureships is to be deprecated. In no case should the Syndicate be forced to nominate a Mahomedan member as such. With regard to many of the subjects, this inflexible rule may lead to the appointment of a member who will have hardly any interest in the subject for which the Committee is appointed.

#### *Examiners' Fees.*

XII. We are of opinion that the rates of remuneration paid to the examiners for the Matriculation, Intermediate and B.A. and B.Sc. Examinations are extremely low. We regret to find that while agreeing in this view, our colleagues have recommended an increase of two annas per paper for the Matriculation Examination only.

We strongly recommend that the present fee for examining each paper at the other examinations referred to above be also immediately increased by at least two annas.

While agreeing with our colleagues as to the necessity of revising the present remuneration for invigilators, we are of opinion that the very substantial increase recommended in the report need not be given effect to, specially as financial stringency is advocated as the reason for postponement of a better scale of remuneration for examiners, a reform which is more urgent than many others.

We are inclined to advocate a uniform rate of remuneration for invigilators for all examinations and we recommend that it should be raised to Rs. 3 per day. We also see no reason why the head invigilator should receive such an increased allowance as is recommended in the report. If the fees for the invigilators are thus reduced, the balance of the sum provided under that head will to a considerable extent meet the expenditure to be incurred in connection with the examiners' fees.

XIII. We do not propose to deal with the other points many of which have already been noted in the report.

NILRATAN SIRCAR.  
HERAMBACHANDRA MAITRA.  
DEVAPRASAD SARVADHIKARY.  
BIDHAN CHANDRA ROY.  
SYAMAPRASAD MOOKERJEE.  
S. RADHAKRISHNAN.

## III

NOTE OF DISSENT BY SIR NILRATAN SIRCAR, K.T., ETC.

*Age-Limit for Teachers.*

Compulsory retirement at 60 or even 65 would be detrimental to the best interests of any educational institution particularly in India where good teachers are so few. Many Universities abroad retain the services of many veteran scholars long past the age of retirement proposed by the Committee. I am of opinion that the consideration of age alone should have no bearing on the question of retirement in a University.

NILRATAN SIRCAR.

## IV

NOTE OF DISSSENT BY PROFESSOR HERAMBACHANDRA MAITRA,  
SIR DEVAPRASAD SARVADHIKARY, DR. BIDHANCHANDRA ROY  
AND MR. SYAMAPRASAD MOOKERJEE.

We are in agreement with the recommendation as regards the age of retirement for whole-time teachers. We would however add a proviso definitely enabling the Senate to reappoint teachers after they have reached the age of 65 for a short period not exceeding two years at a time. Such teachers should be placed outside the grade and should be reappointed if the Senate on the recommendation of the Executive Committee concerned regard their continuance as conducive to the best interests of the University.

In some of the best foreign Universities, there are eminent professors who would be disqualified by a rigid adherence to the age-limit for whole-time teachers recommended by the Committee; and some distinguished members of the Indian Educational Service, after retirement from service in India, have received high appointments as Educationists in England. The reasons for acting on the principle underlying such appointments are as valid in India as they are in England. And here, in certain departments of post-graduate teaching, it is the oldest whole-time men who have sustained the reputation of Calcutta as a centre of advanced studies and research. Some members of the I.E.S. have after retirement from Government service been invited to accept appointments in private colleges, which they have served with credit.

HERAMBACHANDRA MAITRA.  
DEVAPRASAD SAVADHIKARY.  
BIDHANCHANDRA ROY.  
SYAMAPRASAD MOOKERJEE.

## V

## NOTE OF DISSENT BY PROFESSOR HERAMBACHANDRA MAITRA.

Having regard to the heavy burden of responsibility and of work imposed on the Registrar and also the very arduous nature of the duties which have to be performed by the Controller, I feel constrained to oppose the recommendation regarding his status and the proposal to abolish the post of Assistant Controller.

In my humble opinion, it would not be possible for a single officer, even with a motor-car placed at his disposal, to perform satisfactorily the work of Secretary of both the departments of Post-Graduate Studies. If the amount of work that has to be done is less than what may fairly be required from a whole-time officer, the post should be combined with a lectureship. Apart from the work, the dignity and responsibilities of the office make it desirable that on the Arts as well as the Science side, the Secretary should be a person capable of undertaking teaching work to a certain extent; and this should be taken into account in fixing his pay.

GIRIDIH,

*October 30, 1929.*

HERAMBACHANDRA MAITRA.

## VI

## NOTE OF DISSENT BY SIR DEVAPRASAD SARVADHIKARY.

While agreeing with Prof. Radhakrishnan, Drs. Howells and Aditya Nath Mookerjee regarding the need of maintaining the status of the Secretary of Post-Graduate Teaching in Arts as far as the question of salary and dignity of the post is concerned, I think it will be a mistake to attempt to make one Secretary do the work of two, under two distinct Councils and at two and possibly more places. I think the present system of two Secretaries should not be disturbed and both should have the pay and status of a University Professor indicated above. Mistaken retrenchment will considerably weaken efficiency, discipline and work.

I strongly object to another mistaken retrenchment in another direction, namely reduction of the pay and interference with the status of the Controller of Examinations and abolition of the post of Assistant Controller. The Examination system hopelessly broke down some years ago under the then Registrar and I have seen nothing since then to warrant the supposition that it will be an improvement to bring the Controller under the Registrar or that there is any necessity for it. Centralisation of staff and office may be effected in other Departments and there are many such including the Post-Graduate Departments. But the Controller's Department should be left alone and improved and strengthened where necessary. It is difficult, delicate and exacting work lasting nearly throughout the year and it is essential to have an experienced and reliable assistant in the Department. I therefore strongly advocate the continuance of the present system subject to the necessary improvement and strengthening of the staff. Another point of dissent I feel it my duty to note, that is in connection with the question of the age-limit of the staff. It would be a mistaken economy to let a member of the clerical staff retire when he is most experienced and at his best. Unless therefore his health breaks down or he proves inefficient he should ordinarily be allowed and required to work till he is sixty and in exceptional cases of merit of which the Syndicate shall be the judge, the age may be extended to 65 as in the case of Professors and Teachers. It is wrong to suggest that ministerial work is more exacting than teaching work and that a man is bound to break down at 55 by the weight of ministerial cares. We have bright examples to the contrary and some of our best and most reliable officers are 55

or more. On no account should I consent to their services being dispensed with because they are 55. The argument about the grievances of junior men cannot hold good in this any more than in the Professors' case, for juniors will soon be seniors and they will get the benefit of the higher scale of pay. That Government Rules are otherwise is no reason for the lowering of the age of retirement.

I note that the Committee has assumed larger function and jurisdiction than to my mind is warranted by the terms of the Resolution. This has been done by straining the interpretation of the Resolution almost to a breaking point. Improvement and stability of the Post-Graduate Department were the original intentions of the Resolution and under its terms connected minor University matters essential for the purpose might come. The Committee in time worked itself up to a miniature Sadler Commission. The result has been delay and greater weakening of the resolutions than even in the case of obsolete resolutions and resolutions and recommendations of the Sadler Commission. It has not been possible to send our recommendations to the Government in time in order to get adequate aid to the Post-Graduate Department. When full financial results are worked out (which have not been done) the situation may be such as to make many of the recommendations inoperative. While the question of the increase of pay in the Press and the Registrar's office has engaged the attention of the Committee, the essential question of improvement of work in the Colleges and Schools and the strengthening of their resources have been left alone. While it has been repeatedly urged that students come ill-prepared for Post-Graduate work no suggestions for improvement of College-work by better inspection and more association of the Post-Graduate teachers with the Colleges have been attempted. Many of the recommendations are therefore likely to be inoperative.

I have other points of dissent to urge, about which I shall join my colleagues who agree with such dissent.

SURI LANE,  
The 3rd October, 1929.

DEVA PRASAD SARVADHIKARY

## VII

## NOTE OF DISSENT BY RAI DR. U. N. BRAHMACHARI BAHADUR.

I. The Number of Lectures fixed in the Report for Individual Teachers in the Post-Graduate Department is too small with the result that the cost per ordinary routine lecture or Tutorial is very high, as will be shown below :

It has been suggested in page 13 of the Report that the number of lectures to be delivered by a Professor should be 5 lectures *plus* 2 tutorials or 7 altogether. But, as a matter of fact, in calculating the lectures to be delivered by a Professor in the different departments, the number of lectures has been fixed at not more than 4, except in the case of some endowed Chairs in Science. The highest number of working weeks during the year in the Post-Graduate department amounts to 28. Calculated on this basis, it will mean that—

the cost per *single routine* lecture or tutorial (if any) of a Professor is Rs. 75 to Rs. 106 ;

the cost per *single routine* lecture or tutorial of a Reader is Rs. 18 to Rs. 25 and

the cost per *single routine* lecture or tutorial of a Lecturer is Rs. 7 to Rs. 18.

In fact the cost is somewhat higher than above, as the above calculation does not include minor holidays during the working weeks. If, as the *majority* of the members in the Committee held, two tutorial periods are considered as equivalent to one lecture, the cost will be still greater than what is stated above.

The Senate should consider whether the cost of an ordinary routine lecture or tutorial of a teacher should be so high as above or whether the enormously heavy expenditure that would result in the above arrangement cannot be very reasonably curtailed by increasing the number of periods to be taken by a teacher.

I would suggest that the number of teachers in each department should be calculated by adopting the following periods of

work. This is even less than what appears to have found general acceptance among many Indian Universities :

University Professors	...	10	periods per week
Readers	...	15	” ” ”
Lecturers	...	15	” ” ”

II. Too much stress has been laid in the Report on the need for an extensive tutorial teaching in the Post-Graduate Department, but it is curious to observe that such teaching was never adopted in practice either before the last Re-organisation Committee of 1925 or during the period that has elapsed since then, up to the present time. Tutorial classes have never been taken with much seriousness, as will be seen from the number of absentee students in such classes. In some departments there was little or no tutorial teaching. Nor have any complaints been made by the teachers to the authorities concerned about the meagre attendance of students in the tutorial classes. It was only when the question of determining the numerical strength of the staff in a department was discussed in the Committee, that so much stress was laid upon the need for a system of tutorial work, which almost amounts to spoon-feeding and which is evidently inadvisable and even harmful for post-graduate students.

The Senate should therefore consider whether the recommendation in the Report for a highly elaborate system of tutorial teaching is not calculated to prevent any reduction in the number of teachers, which would inevitably follow if such an elaborate system was not insisted upon.

III. I consider that no permanent provision should be made for the teaching of those alternative groups in which the students are very few.

There should be a definite ruling of the Senate on this point based upon an average of the actual number of students taking up an alternative group during a period of two or three years. This will prevent avoidable waste.

IV. In Section 32, page 17, the Committee have recommended that if it be found necessary to terminate the services of any member of the whole-time staff, he may be allowed to continue, on full pay, up to 31st May, 1932 or 1933, though evidently there will be no work for him.

I consider that it is far more desirable that such gentlemen should be given the advantage of Sec. 32(a), (b) and (c) than the alternative of Section 32(d).

V. I feel that if the demand for whole-time teachers in any department decreases in future, reduction in the staff should be

effected with all the advantages indicated in Sec. 32(a), (b) and (c) instead of waiting till the vacancy arises by the incumbent leaving the post. I refer to Sec. 63, page 35, dealing with the English department and also other departments to which this rule may apply.

I further hold that in departments in which it is recommended that part-time teachers should replace a whole-time teacher, it should be effected immediately, instead of waiting till a vacancy occurs, provided that the full-time teacher whose office is terminated should also have the advantage of Sec. 32(a), (b) and (c).

VI. In most of the recommendations regarding the staff in a department the Committee state that under the arrangements suggested by them "when a teacher is away on leave, no acting arrangement will be necessary." I consider that this arrangement for a *permanent reserve staff* to provide for leave emergency in every department for groups of not more than 7 or 8 men is most expensive. The better arrangement would be that when such a contingency arises, it should be met by drawing upon the colleges which should easily be able to meet such temporary requirements.

This would also lead to a reduction in the staff of the various departments recommended by the Committee.

VII. I consider that the leave rules recommended in the Report for the teachers are much too liberal. The number of working weeks for teachers in the Post-Graduate Department is not more than 25 and is actually less if minor holidays during working weeks are taken into consideration and it is doubtful whether they should be given such liberal leave as has been recommended by the Committee. The leave rules should be framed on the lines adopted in what are called the vacation departments of Government (Education and Judicial).

VIII. Arrangements made for post-graduate teaching in other Universities which have replied to the Questionnaire sent to them should be considered, so that we may benefit from their experience.

IX. Experience has shown that, during the number of years the Post-Graduate Department has been in existence, there has been very little demand for the study of Comparative Philology among the students. In spite of this the Committee have recommended increased emolument for the Professor of this Department on the unconvincing ground that he should give more intensive teaching in other departments than what is required by the existing Regulations.

X. I would add that our obligations to teachers who have been serving for more than 10 years are certainly much greater than to those who have been serving for a much shorter period. I hope that this will be carefully borne in mind by the Selection Committees.

#### *Observations.*

(i) *The conclusion arrived at from the above remarks is that the staff fixed by the Committee for the various departments may require considerable modification resulting in a substantial saving of expenditure.*

(ii) *It cannot be argued that the small number of Lectures fixed in the Report for teachers of all grades is considered necessary in order to give every one of them a large amount of time for Research. Such a principle can only be applied to teachers holding endowed Chairs whose duties under their terms of appointment may be primarily research work. I consider that the work of the ordinary teacher in the Post-Graduate Department is primarily to guide Post-Graduate students in their studies.*

*In any case, there should be a regular record of research work done by teachers which should be taken into consideration every year to determine whether, in the case of a teacher primarily appointed for teaching his researches justify the small amount of teaching work fixed for him in the Report.*

(iii) *Excessive tutorial teaching is undesirable in the case of Post-Graduate students.*

(iv) *Alternative groups of subjects, for the study of which experience has shown that there are very few students, should not be provided with a full permanent staff of teachers.*

(v) *As regards the other suggestions made in this Note, the Senate should accept the recommendations of the Committee with such modifications as may be necessary in the light of the remarks made in it.*

UPENDRANATH BRAHMACHARI.

## VIII

NOTE OF DISSSENT BY DR. G. HOWELLS, DR. ADITYANATH  
MUKHERJEE AND PROFESSOR S. RADHAKRISHNAN.

The maximum of the Controller's pay has been reduced to Rs. 800, the present maximum being Rs. 1,000. This reduction is, in our opinion, most unfortunate. If there is one office in the University, next to that of the Registrar, on which depends the prestige of the University, it is that of the Controller. He is the custodian of the question-papers of all the examinations, and is responsible for their smooth conduct. He is the Head of an important administrative branch of the University office. He exercises very considerable executive control over the superintending officers at centres of examination spread all over the province, issuing orders on his own responsibility in all emergency cases, pending their approbation by the Syndicate. We can appreciate the importance of this post from our experience of the past when the frequent leakage of questions not only lowered the efficiency of the University administration in the eyes of the public but caused considerable hardship to the candidates. It is not an exaggeration to say that the creation of this post carrying the present status and pay saved the credit of the University. The Organisation Committee is not a retrenchment committee. This is obvious from the terms of reference as to the object and the scope of its inquiry as well as from the fact that its recommendations seek to secure on the whole better and more assured prospects to all officers employed by the University on the administrative as well as the teaching side. Its primary object is not to effect economy but to secure more efficiency, so far of course as such efficiency is consistent with economy. This object is traceable in most of its recommendations. It therefore appears as very strange that in respect of the Controller's Department it constituted itself into a retrenchment committee, and abolished the post of the Assistant Controller replacing it by that of an Office Superintendent, and curtailed the status and the pay of the Controller's post. The economy thus effected is an extremely doubtful gain. In view of the nature of the duties discharged by the Controller, it is essential that he should be an Officer of the same status and pay as a University Professor and Departmental Head. The salary of the post should be such as would shield its incumbent from temptation and his status should be sufficiently high to enable him to receive the respect of and to exercise effective control over the gentlemen who are appointed to set papers and look over scripts.

We are in agreement with the view that for the better organisation and co-ordination of the several offices of the University we should aim at unity of administrative control, and that in furtherance of that object, the Controller's Department should be an integral part of the Registrar's Department, and that the Controller should be officially subordinate to the Registrar. But to achieve this it is not at all necessary to cut down the Controller's pay. When the proposed scheme of the amalgamation of the University offices is given effect to, the duties of the Registrar as the Chief Executive Officer of the University on its ministerial side would be more onerous, and this would justify the grant to him of a substantial permanent allowance, and on the basis of this allowance the post of the Controller may be subordinated to that of the Registrar, as proposed by the Committee. Apart from this change the Controller's Department should be left undisturbed.

The Committee recommend the appointment of one Secretary on a salary of Rs. 250-600. This seems to be very inadequate in view of the arduous responsibilities attached to the office as well as its dignity. The Secretary under the new scheme will have to look after the Arts and Science departments as well as the under-graduate work. It is unreasonable to suggest a diminution of salary and an increase of work. We think that his salary and status should not be inferior to that of a University Professor. We therefore dissent from the view of the *majority* and strongly urge that the Secretary should be placed on the grade of Rs.  $750-\frac{50}{2}$ -1,000.

ADITYA NATH MUKHERJEE.  
S. RADHAKRISHNAN.  
GEORGE HOWELLS.

21st September, 1929.

## IX

## NOTE OF DISSENT BY DR. B. C. ROY.

1: To me it is painful to find that the report of a University Committee should be so vague, so ambiguous and in places so full of mistakes both in language and in form. Apart from the sentimental aspect of this criticism I feel that the vagueness of the language will lead to insuperable difficulty in giving effect to the scheme suggested in the report. In like associations it is usual for the report of such committee to be handed over to another expert body for the purpose of giving to it a legislative shape, which removes ambiguity in language and procedure. But in this University we generally take a report of this character as the text for guiding our future action, only in some cases the regulations are altered in accordance with the suggestions of the report. It is therefore, more essential in a report of this character that it should be drawn up carefully, both as regards its form and matter.

2. As we read through this report, we find that ideas, sometimes contradictory in nature, have been placed one on the top of the other. This clearly indicates that the report does not embody, as it should, a set of conclusions arrived at, after dispassionate and careful consideration, of various problems of the University but is an embodiment of an attempt, oftentimes unsuccessful, to bring together conflicting points of view. The report, therefore, may be termed a "compromise report" and its very vagueness is a sure sign of such a compromise. From the financial point of view, the vagueness of the report is liable to create difficulties in working. I suggest, therefore, that the report should be re-submitted to a small committee of the Senate which, while keeping to the findings of this Committee, will make the language of the report clearer and more definite and where necessary remove apparent contradictions.

I do not approve of the method in which decisions have been arrived at by the Committee regarding the requirements of the various branches of study in the Post-Graduate Departments. The subjects have been divided into branches, re-grouped and assorted, values have been put to such divisions and sub-divisions, without, in many cases, previous reference to the Board of Studies concerned or to the teachers. The number of hours of lectures necessary to be delivered in each branch, the amount

of work to be done by a teacher have all been put on an arithmetical basis, which, in my opinion, is likely to lead to confusion. Not only the quantity of work to be done by a teacher has to be considered but also the quality of work required of him for a particular subject has to be taken into consideration. No doubt the number of students studying in a particular class has some bearing on the staff required for that particular subject, but the special knowledge required of the teachers in a particular branch of advanced study cannot be ignored and it is not possible for a teacher to specialise the several branches of one subject. If the members of the Committee had been so selected that each member were an expert in any one of the subjects taught in the Post-Graduate Department, there would have been some justification for the Committee arriving at conclusion in the way they did. It so happened that some of the members were interested in certain subjects which they taught and about which they could speak with authority and conviction but there are many subjects about which none of the members could speak with so much definiteness and naturally those subjects would not have so much attention bestowed to it in any system of arithmetical calculation such as has been followed by the Committee. It would have been probably a better guide if in coming to a decision regarding the requirements of the different departments, the Committee had before it the figures not of one year only, a year which might be a lean one with regard to one subject and not with regard to another, but had taken the statistics of the last five years, the number of lectures delivered by each individual teacher, the number of students attending the classes in various subjects.

3. I would have liked to see the lecturers' grade fixed at Rs. 250-25-600, in view of the fact that all the professors, even those belonging to the Trust Fund, have been given a higher salary and grade.

4. I oppose most strongly the proposal for the financial control of the University. Chapter XI of the report should be deleted, in my opinion, as no useful purpose would be served by having two bodies in the University with overlapping duties. I am aware that during the past five years misunderstandings have arisen as between the spending department and the Board of Accounts. But they are mostly due to the want of an office manual. I can say, without fear of contradiction, that no instance can be quoted within this period when the efficiency of a department or the urgent need of a particular subject has been overlooked or neglected. I am convinced that no financial control could be exercised by a committee where even one member of the executive is present. It is unfortunate that the Construction Committee should have

decided that instead of a finance committee of this type being an Advisory Committee to the Board of Accounts, it has been given the power of making recommendations to the Senate regarding proposals for expenditure. It is not clear that whether this committee is to find out ways and means for any expenditure, whether this committee should exercise check in the expenditure during the year. In Section 254 the Committee recommends that the Board of Accounts should keep its present power, *viz.*, those of audit, those of checking expenditure and those of finding ways and means. If that be so, the proper procedure should be to allow the Finance Committee to decide which of the proposals are urgent and for the Board of Accounts to determine the ways and means of finding the money. It is not clear how the Finance Committee would be able to prepare the Budget in its final form if this committee is not also in charge of the accounts.

5. I have already raised objection to the inclusion of Section 262 of the report as the financial effect of the recommendation has not been considered by the Committee; however, on several important matters the Organisation Committee have left the decision to future committees to be appointed by the Senate. In these circumstances it is impossible to estimate the financial effect of the recommendations except in a very limited sense. I suggest, therefore, that after the main recommendations of the Committee regarding the number of teachers, their pay and prospects, the number of the staff, their pay and prospects—have been sanctioned by the Senate; special committees should be appointed and the reports of these special committees along with the sanctioned scale of number and salary of the staff and teachers should be put before the Board of Accounts for a calculation of the financial effect.

6. In view of the fact that in the Post-Graduate Department the Committee have recommended the appointment of one Secretary only, his duties are likely to be heavier than at present, particularly, when it is proposed that the clerical staff now under the control of the Governing Body of the College of Science should be placed under the Secretary of the Council. I consider that the pay of the Secretary of the amalgamated Post-Graduate Department should be higher than that recommended by the Committee, and he should be placed in a grade of Rs. 600-50-1,000.

## X

## NOTE OF DISSENT BY MR. C. C. BISWAS.

I sign the Report subject to reservations which I shall indicate more fully before the Senate. For the present, I may state that I agree generally with the views expressed by Mr. J. C. Mitra, Sir Jadunath Sarkar and Rai Dr. U. N. Brahmachari Bahadur in their respective notes of dissent. I am not satisfied that the Committee have succeeded in evolving the most economical organisation consistently with efficiency. Some of the radical defects, again, to which Mr. Benoy Kumar Sarkar, for instance, drew attention in his printed notes remain unremedied.

C. C. BISWAS.

## XI

## NOTE OF DISSENT BY MR. J. C. MITRA, M.A.

The desperate hurry with which it was sought to finish the work of the Committee by the 24th September last has resulted in the preparation of a report—admittedly incomplete in many respects—the most important being the review of the financial situation of the University as a whole, which is to form the basis for discussion of the future financial arrangement with Government as indicated in Mr. Lindsay's letter of 10th March, 1926, conveying sanction to the recurring grant for the Post-Graduate Department for a period of five years.

The financial statement appended to the report—fragmentary as it is—was not discussed in the Committee and para. 262 of the report referring to it should be expunged.

A consolidated statement dealing with the entire financial situation as contemplated in para. 5 (d) relating to the scope of enquiry of the Committee should be prepared and reviewed by the Committee before the report can be submitted to the Senate for consideration.

The question of payment by Government of the outstanding dues on account of examiners' fees amounting to about 2 lakhs of rupees which are carried forward from year to year should be taken up with reference to the last communication of Government on the subject.

Apart from the question of revenue and expenditure of the University as a whole the question of ways and means for the deficit months from July to November each year should be considered so that the University may avoid the necessity of taking overdrafts from the Bank during these deficit months and paying interest thereon. The question has assumed an important significance this year on account of Government withholding payment till January next of the additional contribution of Rs. 57,000 payable under the contingent liability arrangement. The Board of Accounts have taken exception to the last intimation from Government to the effect that the matter will be "considered" in January next. It would be impossible for the Board of Accounts to make proper calculation of ways and means for the deficit months if sanctioned grants from Government are not received in time. It should therefore be stipulated that whatever grants Government sanction for the University should be paid early in July each year.

As mentioned in the preamble the Senate appointed the present Committee to consider and report on the organisation of the University in all its aspects and it is therefore inconsistent with the terms of its appointment to suggest to the Senate to appoint special committees for considering several important issues. If the Committee felt that it was not convenient for the whole Committee to consider these questions, they should have appointed Sub-Committees as was done in the case of the question of office reorganisation and the reports of these Sub-Committees should have been considered by the main Committee and embodied in its report.

As regards the " Calcutta Review " the report of the Special Committee on the question of its continuance or otherwise should be considered by the Committee and its findings incorporated in the report.

For the Students' Welfare Scheme a provision of about Rs. 22,000 is made in the Budget Estimates of which about Rs. 20,000 are spent in the collection of statistics and medical examinations but the important issue involved is one of future policy as to whether in view of the statistics already collected it would not be desirable to utilise the money for constructive work by reducing the establishment charges to a minimum. The reduction of one or more appointments here and there does not meet the situation and the report of the Special Committee which is considering the question should be dealt with by the present Committee and the Senate should not be asked to appoint a Special Committee for the purpose.

Instead of the Senate being asked to appoint Special Committees the present Committee should appoint Sub-Committees of its own to consider the question of expenditure on equipment and working expenses of laboratories of the different branches of the University College of Science as well as the amounts of research grants to different professors. As already mentioned in para. 204 of the report co-operation of different branches is bound to lead to savings in expenditure with increased efficiency.

The above remarks apply equally in the case of libraries and the question of construction of buildings and of requisite engineering establishment for their upkeep and maintenance should be considered by a Special Sub-Committee and their report discussed by the present Committee and embodied in its report.

As the findings of the Committee in the above issues will affect the financial position it would be impossible to draw up a complete financial statement before final decisions are arrived at in all these cases.

The University Law College has been in existence for the last 20 years and it is time that the Committee should find out and report how far the results achieved and benefits conferred on the students justify its existence as a model Law College and how far it has attained the object for which the University is concerned ; it is practically the same as that of the Post-Graduate Department and the mere fact that it has to be technically affiliated to enable it to send up students for the B. L. Examination does not bring the case under the category of affiliated colleges in general and take it beyond the purview of the scope of enquiry of the present Committee. Its finances are inseparately connected with the General University Finances which would be apparent from the conditions under which the last recurring grant for the Post-Graduate Department was sanctioned by Government.

A private college affiliated for the B. L. Examination has been working during the entire period of existence of the University Law College and the Committee should decide whether similar affiliation should not be granted to other private colleges.

The question of reduction of course of study in Law from 3 to 2 years may well be considered by a Sub-Committee consisting of the members of the Faculty of Law included in the personnel of the present Committee and they may consult the Faculty of Law if they so like and submit their report to the present Committee for inclusion on its report. The reduction of the period of study will have a financial bearing and affect the amount of grant to be applied for from Government.

It is impossible for one to sign with open eyes except as a matter of form a report incomplete in important essentials affecting the financial situation of the University which is the ultimate aim of the Committee to work out, nor is it possible to subscribe to the suggestion to the Senate for appointment of separate committees to decide important issues as if the present Committee is unable to deal with them. The limit of time is apparently the reason for the course proposed in the present report but this does not advance the object for which the Committee was appointed as the Senate cannot possibly consider the report till it is completed in all important particulars nor can Government be approached without a comprehensive and complete financial statement.

The exact function of the Board of Accounts as defined in para. 3, Chapter VI, of the Regulations has not been correctly described in para 253 of the Report.

As regards the financial administration and control the Board is invested with the same function which is exercised by the Financial Department of a Local Government over the adminis-

trative departments, besides conducting audit which in the case of the Local Administrative rests on the Accountant-General.

The proposed establishment of a Finance Committee whose advice upon the urgency and desirability of proposed expenditure should as far as possible be authoritative takes away from the Board of Accounts all powers of financial control and the climax is reached in the proposal that the Finance Committee will prepare the Budget in its final form and report on any matter which may be submitted to it for opinion.

The idea that the proposed Finance Committee will work in close co-ordination with the Board of Accounts would be practically unworkable. This arrangement would lead to constant friction and controversy and undo all the useful work that the Board had hitherto been able to accomplish. That the Committee should have the power to report on any matter that may be submitted to it for opinion may well cover controversial questions of audit, so that the necessity for the existence of the Board of Accounts disappears.

In all self-governing institutions the financial administration is carried on by a Finance Committee composed of selected representatives unconnected with the Executive and the Board of Accounts at present exercises the function of such Finance Committee, apart from audit and settles the demands in the Budget Estimate after discussion with the representatives of each department. The suggestion made in the note of the Board of Accounts provides for the settlement of the relative demands of different departments while ensuring an effective financial control. No instance can be quoted during last five years where the efficiency of any department has suffered on account of the Board of Accounts not countenancing any necessary or urgent expenditure within the resources of the University.

The Committee's proposal for raising the Registration fees and the fees for the Intermediate and medical examinations should not be countenanced. When the recurring grant for the Post-Graduate Department was sanctioned under the contingent liability arrangement in March, 1926, it was at once realised that with the handicap placed on the income of the Fee Fund it would be impossible to avoid a deficit at the end of five years and steps were immediately taken to raise the rates of certain fees which have enabled the University to avoid a deficit. It would be most unwise to raise the rates of any class of fees now as in the absence of a Reserve Fund on which we can fall back, we should think of such measures only as a last resort. The revenue from examination fees shows a steady decline and with the raising of the

standard of examinations which is essential we should be prepared to face further falling off and it might then be necessary to consider the whole question of raising of fees for all or most of the examinations

The raising of the rates of fees for invigilators proposed by the Committee should be deprecated. The main work of the invigilators is to guard against the candidates resorting to unfair means in appearing at an examination. The nature of work is the same for all the examinations and there is no justification for a graduated scale of fees for different examinations. It cannot be argued that a fundamental detective ability of a basic character is required for invigilators for the Matriculation Examination while a higher detective ability of a specialised nature is required for invigilators for higher examinations to cope with the ingenuity of a more subtle nature of candidates appearing in the Degree or higher examinations. On the other hand the work of the invigilators would be less onerous when dealing with candidates sufficiently advanced in education to have ordinarily a sense of moral principle to prevent them from stooping to unfair means. In latter case one invigilator can be entrusted with the charge of more than 25 candidates. There is no necessity for the appointment of Head invigilators at all, the invigilators working under the directions of the Officer-in-Charge at each centre. The invigilators must ordinarily be recruited from men who have no employment and Rs. 1-8-0 a day ought to be sufficiently attractive for such men with honesty as the main qualification and strong enough to stand the strain.

It should be made clear whether the rate per day would be admissible to those who attend for one period only during the day.

The proposed Provident Fund rules have been made clumsy and unintelligible in many places—a special feature of the report generally—on account of addition of conditional reservations and it is very doubtful whether these would be acceptable to Government in their present form. These may at once be forwarded to Government as it is apprehended that it would take some time before they are finally accepted.

The proposed Leave Rules for teachers are unnecessarily liberal. Permanent teachers who get vacation every three months or less do not require leave for purpose of rest. As grants of leave during the currency of the session must generally have the effect of dislocating work, leave on full pay should be granted only in exceptional emergencies or on grounds of ill-health. 15 days' leave on full pay for each year of service ought to be enough.

Grants of leave would necessarily involve additional expenditure and the inclusion of leave reserve in the strength of the staff in several subjects means a permanent addition of recurring expenditure. Ordinarily during the currency of a session the work of an absentee should be arranged for departmentally. There is enough margin in the strength of the staff to make this possible and the experience in the past confirms this view.

It is objectionable on principle to allow any leave concessions to part-time teachers but when such leave is unavoidable it should be for a restricted period and the work should be arranged for without the appointment of a substitute.

It is very unfortunate that in spite of the repeated requests of several members of the Committee statistics of work actually done during the last four years were not collected and analysed. The scale of work for different classes of teachers laid down in para. 24 of the report has been fixed more as a matter of opinion only. What is required is the result of actual working which would have enabled the Committee to base its recommendations not on a theoretical but a practical standard of work which is exactly what is contemplated in the letter of Government of 10th March, 1926. A senior part-time teacher definitely stated that though he was prepared to deliver a large number of lectures he was prevented from doing so as this could not be arranged for in the routine. Some part-time teachers delivered very few lectures and it was therefore necessary to examine how far the whole-time and part-time teachers worked up to the mark and the results of the investigation should have been embodied in this Report.

The strength of the teaching staff has been liberally fixed in case of almost all the subjects and in an extravagant way in the case of some. There is therefore room for retrenchment. Details will be pointed out when the Report is discussed by the Senate.

J. C. MITRA.

20. 10. 29.

## XII

NOTE OF DISSENT BY DR. ADITYANATH MUKHERJEE.

*Allowance for Departmental Heads.*

The Reorganisation Committee have recommended an allowance of Rs. 150 for Heads of some departments and Rs. 100 for those of others. The criterion on which this difference of treatment was made was the size of the departments. But there is another criterion which ought to be taken into consideration. Apart from the numerical strength of a department, the groups of subjects taught and the allocation of work to the teachers in charge of the groups present a very complex problem which the Head of the department has to solve. Judged by this latter criterion, the Department of Sanskrit is at least as complex as some of the other departments for Heads of which the larger allowance is recommended. In the proposed order of things, the Professor of Sanskrit will be in charge of five or six M.A. groups besides the important Research work and studies of Research students of the University in Sanskrit. I therefore suggest for the consideration of the Senate whether the Head of the Sanskrit Department is not eligible for the allowance on the larger scale.

ADITYANATH MUKHERJEE.

## XIII

## NOTE OF DISSENT BY SIR JADUNATH SARKAR.

1. I sign this Report because in many respects it marks a distinct advance on right principles of education and brings our University into line with the better type of Universities elsewhere. But I add this note as I feel that the Report has not adequately stressed certain points and also because it is necessary to invite the Senate to make an early decision of certain matters of great importance which are apt to be lost sight of if not specifically mentioned.

2. The most crying evil in connection with the Post-Graduate Department of the Calcutta University on the Arts side, next to its low average standard, is the enormous difference between the number of fresh graduates admitted and the number of those pupils who actually complete their studies and go up for the M.A. Examination two years later. Approximately one-half of them drops off on the way. Such an enormous waste of our youngmen's time and money is as deplorable from the point of view of the community as the futile expenditure of its resources and teaching provision on them is from the University's. Such a large proportion of students who do not take earnestly to their Post-Graduate studies and whose mere continuation of these studies is very uncertain, introduces an element of unreality and precariousness in the Post-Graduate Classes and is also a great academic evil. Nothing can be more discouraging to a teacher than to feel that the existence of his class, and therefore his chance of completing his teaching work, depend upon the fitful attendance of a few young men.

3. The evil can be combated by (a) prohibiting the admission of Law students to the 5th-year M.A. Class (except in the case of graduates with Honours), or (b) holding, at the end of the 5th-year, an examination (called the " Previous " or " Preliminary " part of the M.A. in certain other Indian Universities), and promoting none to the 6th-year unless he passes it.

4. A corollary to suggestion (a) above is the reduction of the length of the B.L. course to two years, as is the case in nearly every other Indian University. Such a reduction has been further rendered necessary by the rule of the Calcutta High Court enforcing on Law Graduate a year's practical training under a Vakil before they can be allowed to practise.

5. While I consider it reasonable and just that no full-time teacher at present in the employ of the University should be removed except with his consent or on the recommendation of an independent Selection Committee, I deprecate the idea that the strength of staff laid down in this report for every department should be regarded as the irreducible minimum for all time or even for the near future. Barring the men at the head of each department, who are always indispensable in a University, there should be greater elasticity in adjusting the rest of the staff to the actual academic needs. As a working rule, I suggest that the teaching of an alternative special branch in any subject by a full provision of lectures (*viz.*, two lectures a week for two years continuously for each paper) should be discontinued if on an average of the past three years it is found that less than three students are prepared to study it to the end of the 6th-year Class.

6. In a class taught by the lecture method which is followed at this University, mutual discussion and the sense of competition among the students are very necessary incentives to exertion, but they are impossible in a class which at certain stages dwindles down to one member or none at all. Original research or highly specialised study, on the other hand, is done best by each student in isolation under the teacher's guidance. Spoon feeding by the provision of full regular lectures (at which attendance is compulsory) would be the death of it. Hence, when a student can prove his special aptitude (or previous preparation) for a special branch not taught by the University, occasional guidance by the teacher is more helpful to him than class lectures.

7. The recommendations of the Committee may therefore call for revision, in the light of the above observations, in the case of particular subjects as circumstances develop in the future; and the University authorities should be prepared to make such readjustment without regarding the scale in the present Report as final. (?)

8. There is room for further development of the general principle accepted in this report that the same or very closely allied branches of thought, though included in the curricula of two or three different departments, should be taught in common in only one department and by only one staff. This would increase the chances of corporate discussion by the students of it and broaden their conception of the bearing of that particular branch on others, as much as it would tend to economy.

9. The problem of improving the pay of the teachers in the affiliated colleges and giving them an incentive and opportunity

for higher work (and thus naturally raising their qualifications) cannot any longer be left unattacked, as it vitally concerns the quality of the Post-Graduate work of the University. Individual colleges might put their existing resources to a better use by concentrating on fewer subjects than at present, with a higher staff in each of these; they might increase their normal sources of income, and in both these ways strengthen their claim to increase support from the public funds, as I have seen done in another province.

10. The University can give them even more valuable help by opening an easier and normal way of co-operation: (a) it may send out its higher teachers to quicken the intellectual life of the colleges by delivering short courses of lectures (each complete in itself) outside the routine; (b) it should invite from the more promising teachers in the constituent colleges greater help than in the past in the post-graduate teaching; (c) it should authorise its Science Department to afford facilities to such teachers to pursue their private researches or advanced studies in its laboratories during the slack season. (This I understand is allowed in some cases even now, but only privately by courtesy of the University professor concerned); (d) it should allow the college teachers to participate in a greater degree in the general work of the University. The complete isolation of the under-graduate work from the post-graduate work is harmful to both and has been condemned in the final report of the London University Commission (1913), paragraph 64.

11. On the academic side, the University should, at an early date, decide on a scheme for closely linking up the under-graduate and Post-Graduate courses of study in each subject, so that the two may form an organic whole with gradual progression and waste and overlapping may be avoided.

JADUNATH SARKAR.

29th October, 1929.

## XIV

## NOTE OF DISSSENT BY PROFESSOR J. N. MUKHERJEE.

I have signed the Report and agree with its main findings subject to the following reservations :—

1. I dissent from the recommendation on the constitution of the Selection Committee for Professors and Readers and consider that the three experts to be nominated by other Universities should be replaced by

- (a) One expert nominated by another University chosen by the Syndicate.
- (b) Two members chosen by the Chancellor after consultation of the recommendations of the Vice-Chancellor.

2. I agree with the finding in the Report that with the present standard of attainment and the extent of knowledge connoted by the B.A. and B.Sc. degrees, it is impossible materially to alter the system of teaching provided for Post-Graduate studies, but I consider that the ultimate aim of the University should be to create real Post-Graduate studies involving a considerable amount of independent thinking and research. The object of the University should be to make it general and an underlying principle in the scheme of Post-Graduate studies. This should be ensured by an improved degree standard and by provision of better facilities for study in affiliated colleges so that the University will also be able to utilise to a greater extent the resources in men and materials of the Colleges for the improved degree courses. An improvement in the status of and facilities afforded to teachers in Colleges is also an urgently needed reform in this connection. When these urgent reforms will be carried out it is obvious that a reduction in the number of teachers engaged in formal teaching in the Post-Graduate Departments will be possible.

3. I think that the Laboratories for the ' Biological Sciences ' should be ultimately located in the same place in the interest of academic efficiency and economy of resources. In view of the close association between these subjects and Chemistry and Physics the best course should be to have all the Science Laboratories at one place.

4. In my opinion it is possible to devise a modest and definite scheme for studies relating to agriculture in Soil Science and unless this is done the University cannot be said to have carried out in any way the obligations it has undertaken under the Khaira and Ghose Trusts in this matter.

5. I am somewhat doubtful as to whether the ' Controller of Examinations ' should be made subordinate to the Registrar in all matters connected with examinations. I am inclined to think that it would be better to entrust him with the functions of a ' Security Officer ' in charge of the question papers, their printing and custody, Rolls, answer-papers, and mark-sheets and he should be independent of the Registrar. The Registrar would be responsible for all other matters relating to examinations and the Controller will have a clerk at his disposal. In that event the Registrar must have an efficient Officer with the status of an Assistant Registrar in charge of the Examination Section. This will ensure greater efficiency and more effective control over Examination expenses which is a large item in the Budget.

6. I also think that ultimately it will be found possible to reduce to some extent the strength of the ministerial staff in several sections.

J. N. MUKHERJEE.

31. 10. 29.

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## FINANCIAL STATEMENT.

In making the calculations given below the following assumptions have been made.

Column I.—Probable immediate financial effect of application of the scheme—

- (a) It has been assumed that the amount of remuneration to part-time teachers will remain approximately as at present.
- (b) The posts which will lapse have been assumed to be those in which at present the minimum salaries in the relevant grades are paid.
- (c) In the first place, it has been assumed that the proposed scheme will be brought into operation in its entirety immediately and that all the occupants of posts which are to lapse will retire at once. The savings thus indicated will of course be utilised in paying gratuities or salaries for short-period appointments, as recommended in our report.

Columns II and III.—Average value of posts under present and proposed schemes—

- (a). The average values of posts in the different grades have been calculated from the formula adopted by Government and are assumed to be as follows. They involve arbitrary assumptions about the age of entry to the grade.

		Rs.
Professorships	$700 - \frac{50}{2} - 1,000$ average value	887
Readerships	$500 - \frac{50}{2} - 700$ „ „	6.6
Lectureships	200-20-500 „ „	399
Lectureships	200-25-500 „ „	416
Assistant Lectureships	150-15-300 „ „	256

We have assumed the average value of the present Professorships,  $600 - \frac{50}{2} - 1,000$ , to be 800.

(b) Although the new scale for Lecturers is 200-20-500 of which scale the average value is 399, we have assumed in almost all cases, even in Column III, that the average value will be 416 in view of our recommendation that the present incumbents should continue to receive increments of Rs. 25. Column III therefore is a maximum and in practice will be diminished by Rs. 17 per month for every post of Lecturer to which a present incumbent is reappointed, which is subsequently vacated and filled by a new-comer. There are 42 such lecturerships involved.

(c) In Columns II and III the cost of all the endowed Chairs has been excluded. This has been done in order to allow of comparison with the present Budget figures. In making such a comparison it should be borne in mind that the figures for Psychology are here included in the Science section.

In accordance with the scheme we have advocated whereby teachers, who are not given permanent engagements, are given the option of retiring with gratuities or of continuing in the service of the University for a limited period, we estimate that approximately nine Lecturers in grade, seven Lecturers outside the grade and two Assistant Lecturers in grade will be affected. Assuming that all these teachers decide to leave on 31st May, 1931, we estimate that the approximate compensation payable will be Rs. 48,000. This is based on the assumption that the average length of service is eight years, the average pay of Lecturers on grade is 400, the average pay of Lecturers outside the grade is 250 and the average pay of the Assistant Lecturers is 200. If half of these retire on gratuities and the rest exercise their privilege of continuing their service for a further limited period, the compensation payable will be Rs. 24,000 but additional salaries for each of the two years of further service to the extent of approximately Rs. 36,000 per year will be payable.

## APPROXIMATE FINANCIAL EFFECT.

## TEACHING STAFF.

*Immediate Financial Effect.*

Departments.	Savings.	Increase.
	Rs.	Rs.
English	650	...
Economics	625	...
Commerce	...	400
Philosophy	525	...
Pali	...	...
Mathematics	1,325	...
Arabic and Persian	...	65
History	...	375
Ancient History	1,500	...
Philology	...	...
Sanskrit	1,300	...
Indian Vernaculars	225	...
Anthropology	...	500
Applied Mathematics	...	200
Physics	...	150
Chemistry	...	450
Botany	...	150
Zoology	...	300
Physiology	575	...
Geology	620	...
Psychology	225	...
Bio-Chemistry	...	...
	<u>7,570</u>	<u>2,590</u>

Probable net immediate saving—Rs. 4,980 per month—Rs. 59,760 per annum.

## AVERAGE COST OF PRESENT AND PROPOSED SCHEMES.

*Arts.*

Department.	Average cost of present scheme excluding endowed chairs.	Average cost of proposed scheme excluding endowed chairs.
English	... 4,562	3,927
Economics	... 3,930	3,156
Commerce	... 1,266	1,812
Philosophy	... 3,189	2,940
Pali	... 1,763	1,678
Mathematics	... 4,478	3,472
Arabic and Persian	... 1,800	1,662
History	... 3,196	2,940
Ancient History	... 4,112	2,710
Philology	... 1,000	1,286
Sanskrit	... 3,962	3,140
Indian Vernaculars	... 1,650	1,665
Anthropology	... 1,948	2,034
	<u>36,856</u>	<u>32,422</u>

or Rs. 4,42,272 per annum.

or Rs. 3,89,064 per annum.

*Science.*

Applied Mathematics	... 982	1,611
Physics	... 2,336	2,432
Chemistry	... 2,336	3,087
Botany	... 416	672
Zoology	... 1,728	1,815
Physiology	... 575	...
Geology	... 672	...
Psychology	... 2,510	2,275
Bio-Chemistry	... 200	200
	<u>11,755</u>	<u>12,092</u>

or Rs. 1,41,060 per year.

or Rs. 1,45,104 per year.

## Total Science and Arts—

Average present scheme.

Rs. 5,83,332

Average proposed scheme.

Rs. 5,34,168

Savings: Rs. 49,164 per year.

The proposals of the Committee involve the raising of the pay of endowed Professors from an average of Rs. 750 per month to an average of Rs. 887. As there are twelve of these posts involved the additional cost will be Rs.  $137 \times 12 \times 12$  per annum, i.e., Rs. 19,776.

It may be assumed therefore that as far as the teaching work and salaries in connection therewith are concerned, the acceptance of the proposals will result in a saving of approximately Rs. 30,000 per year.

## APPROXIMATE FINANCIAL EFFECT OF OTHER PROPOSALS.

*Examinations.*

Rs.

Increased Income—Rs. 47,000	Intermediate Examination fees ...	13,000
	Registration fees ...	24,000
	Medical Examination fees ...	10,000
Increased Expenditure ...	Invigilation ...	42,000
	miners ...	17,000
	M.A. and Law Paper-setting ...	10,000
	Net increase of expenditure on examination ...	22,000

*Allowance to Heads of Departments.*

7 at Rs. 150 ... Rs. 1,050  
 8 at ,, 100 ... ,, 800

,, 1,850 per month.

Increased expenditure—Rs. 22,200.

*Creation of Post-Graduate Fellows.*

7 at Rs. 125 ... Rs. 875 per month.

Increased expenditure—Rs. 10,500.

*Administrative Staff.*—There will be ultimately savings in the cost of the superior administrative staff and increased expenditure for clerical staff. The total increase should not exceed Rs. 5,000.

*Increased expenditure under heads other than teaching staff will therefore be Rs. 59,700.*

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## APPENDIX No. 1.

## QUESTIONNAIRE.

## Questions.

**Bodies or persons  
whose opinions  
are invited.**

1. Do you consider that the number of teachers under your Board, as fixed by the Senate on the report of the last Re-organisation Committee, is adequate for its requirements or in the light of experience since the last reorganisation, would you propose any reduction or increase?

Professors, Boards  
and Chairmen.

2. (a) On what lines, if any, would you propose re-adjustment or development of the activities of each Board in the immediate future?

Professors, Boards,  
Chairman, Execu-  
tive Committees  
and Governing  
Body of Science  
College.

(b) Do you think that the courses of study in each subject require modification? Do you think that the number of groups into which the subjects have been subdivided is satisfactory? If not, what alterations would you suggest in order to ensure efficient teaching?

(c) Do you consider the present division of subjects satisfactory or do you recommend regrouping of subjects or branches of subjects from the point of view of teaching and administration?

(d) If any developments take place as outlined in (a), (b) and (c) above, how will they affect your answer to Q. 1?

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**Note.**—“Professors” means University Professors  
“Teachers” means University Lecturers and Assisant Lecturers.  
“Chairmen” means Chairmen of Boards of Higher Studies.  
“Boards” means of Higher Studies.

Bodies or persons  
whose opinions  
are invited.

Questions.

Chairmen, Boards  
and Professors.

3. (a) Are you satisfied with the present standard of examination or teaching? If not, how would you propose to improve it?

Ditto, also Con-  
troller of Examina-  
tions, Executive  
Committees and  
Governing Body of  
Science College.

(b) Do you consider the present arrangements regarding the M.A. and M.Sc. Examinations and the procedure of appointing examiners and of publishing results of examinations satisfactory?

If not, what modifications would you suggest?

Chairmen, Pro-  
fessors and Boards.

4. Are you satisfied with the present facilities given to teachers for the proper discharge of their duties?

Ditto, also Exe-  
cutive Committees  
and Governing  
Body of Science  
College.

5. (a) Do you consider the present relationship between the Colleges and the Post-Graduate Department to be satisfactory?

(b) How far do you think the Post-Graduate Department can co-operate with the affiliated Colleges in Calcutta with regard to under-graduate work?

(c) What is the extent of co-operation from College teachers which your Board now gets? Is it practicable to extend it, and if so, to what limit? Are you satisfied with the control of the Post-Graduate Department over part-time lecturers?

Professors and  
Chairmen.

6. To what extent, and under what circumstances and conditions, should persons, who are not in the teaching profession, be invited to take part in Post-Graduate work?

Chairmen, Profes-  
sors and Boards.

7. Are you satisfied with the present mode of appointing University Professors and Teachers? If not, what suggestions would you make?

Executive Com-  
mittees and Gov-  
erning Body of  
Science College.

8. (a) Do you consider it necessary or desirable that the present arrangements for teaching subjects for under-graduate students in the University should be continued, taking particularly

## Questions.

Bodies or persons  
whose opinions  
are invited.

into consideration the provision made for the study of such subjects in Calcutta Colleges?

(b) If you advocate that teaching of some subjects should be continued, what proposals would you make to secure efficient control and supervision of work?

9. (a) Is the present constitution of the Post-Graduate Department working satisfactorily? If not, what modifications would you suggest?

Syndicate, Board of Accounts Chairmen, Professors, Executive Committees, Governing Body of College of Science, Trust Boards, Registrar, Controller and two Secretaries of P. G. Councils.

(b) Are you in favour of two Councils or one? How would you effect an amalgamation of the two Councils, if you are in favour of it? Should the constitutions and functions of the Council or Councils be confined to academic matters?

(c) Are you in favour of maintaining the present differentiation between the Higher Board of Studies and the Board of Studies? If not, what are your proposals for amalgamating the two in relation to existing authorities? What functions would you assign to the Boards of Studies you propose? How would you constitute them?

(d) Is it desirable that there should be closer co-ordination between the different administrative bodies in the University, or that some departments be amalgamated? If so, on what lines?

Note.—Bodies to be noted—

(a) Boards and Executive Committees and Councils and Syndicate.

(b) Governing Body of Science College and Science Executive Committee.

(c) Governing Bodies of Trust Funds and the Post-Graduate Department.

(d) Syndicate and Post-Graduate bodies.

(e) Senate and Post-Graduate bodies.

(f) Board of Accounts and Syndicate and Executive Committees.

## Questions.

Bodies or persons  
whose opinions  
are invited.

Chairmen, Pro-  
fessors Boards,  
Executive Com-  
mittees and Gov-  
erning Body of  
Science College.

10. (a) Are you satisfied with the existing arrangements for supervision and control of teaching work and of teachers in the Post-Graduate Department? If not, what suggestions would you make?

(b) Is it desirable that the President of the Post-Graduate Council, the Chairman of each Board and University Professors, or any other authority should have definite administrative functions and authority, over the teaching staff concerned, assigned to them? If so, in what way?

Chairmen, Tea-  
chers, Professors  
and Governing  
Body of University  
Law College.

11. Do you consider the grades of pay or the fixed salaries, as the case may be, of University Professors, Lecturers, Assistant Lecturers and Demonstrators to be adequate, and the terms of their appointment and the present Provident Fund Rules to be satisfactory?

Executive Com-  
mittees, Syndicate,  
Registrar, Con-  
troller, Secretaries,  
Governing Bodies  
of University Law  
College and College  
of Science. and  
Board of Accounts.

12. (a) Have you any suggestion for the re-organisation of the University Offices, including the University Press, with reference to the number of assistants required, their grades of pay, conditions of service, leave rules and pension and Provident Fund rules?

(b) What modifications, if any, would you suggest in the procedure of making appointments in the administrative staff with a view to ensure proper selections?

(c) Would you advocate amalgamation of certain offices?

Syndicate, Board  
of Accounts. Exe-  
cutive Committees,  
Governing Bodies  
of Science College  
and Law College  
and Trust Boards.

13. What modifications, if any, would you suggest in the procedure of preparing the Budget of the Post-Graduate Departments, the Governing Body of the College of Science, the Press and Publication Department, Law College and other Bodies with a view to secure more economic and efficient co-ordination and control?

## Questions.

Bodies or persons  
whose opinions  
are invited.

14. How would you alter the existing rules and regulations in order to simplify work in the administrative departments of the University?

Syndicate, Executive Committees, Governing Body of Science College and Board of Accounts

15. In view of the financial difficulties of the University have you any suggestions to make so as to augment the fee or other income of the University?

Board of Accounts, Syndicate, Governing Bodies of Science College and Law College, Executive Committees and Trust Boards.

16. How would you bring the University into closer touch with the educated public? Do you advocate organising Extension Lectures to be delivered by University Teachers?

Chairmen, Professors and Executive Committees.

17. How would you build up a corporate life among Post-Graduate students and bring them into closer touch with the teachers? What modifications, if any, would you suggest regarding the present arrangements in the matter of students' residence and welfare work?

Chairmen, Professors, Teachers, Students' Welfare Committee, Students' Residence Committee, Executive Committees and Governing Bodies of Law College and Science College.

What steps should the University take to further physical instruction to the students under its direct control?

## APPENDIX No. 2.

## ENQUIRIES.

*Registrar.**(Re Board of Accounts)*

(1) What economies can the Board of Accounts suggest in the management of the University Funds?

(2) To make any suggestions for more efficient financial administration and control.

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*Registrar, Controller, P. G. T. Arts and Science, Secretary, Governing Body, University College of Science, and the Principal, Law College.*

(1) Name, age, qualifications, salary and terms of appointment of each member of the department with a general statement of the work they do, and the staff in 1920.

(2) Number of letters issued during each of the last three years, and in 1920.

(3) Number of letters received during each of the last three years, and in 1920.

(4) Number of office working days last year.

(5) Office working hours, including overtime, if any.

(6) Statement of casual leave, if any, taken last year by each member.

(7) Leave rules and practice including casual leave followed by the Department.

The report of the Sub-Committee on Office re-organisation to be supplied to the University Organisation Committee.

Also a note on the system of granting leave, if any.

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*Registrar.*

(1) The subjects in which the University run school classes and a list of schools in Calcutta which are affiliated in these subjects.

(2) Relationship between the University and the University Basanti Bijay School of Mines at Ikrah.

(3) The staff employed exclusively on High School Work.

(4) The estimated possible reduction in staff, if the responsibility of supervision of High Schools devolves upon another body.

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*Secretaries, P. G. T. Arts and Science.*

(1) The names of all teachers in the department.

(2) The following information to be supplied with regard to each teacher:—

(a) Status, *i.e.*, Professor, Lecturer, Assistant Lecturer, etc.

(b) The date of each teacher's first appointment and the terms of the appointment including starting salary, increments, if any, with dates, and length of appointment.

(c) Subjects taught and number of hours of lecture per week, group by group, actual routine to be supplied together with the number of students attending each lecture.

(d) Age, qualifications, published research work or other published work with dates or other academic activity of each teacher.

(e) Undergraduate work, if any, undertaken by each teacher.

(f) A statement from each teacher as to the tutorial or practical or research work, if any, done with each class.

(3) The number of students reading in each department at the beginning and at the end of session, and also the number of such students reading Law.

(4) The number of students who have presented themselves for the M.A. or M.Sc. Examination during each of the last three years in each Department.

(5) Number of alternative courses allowed to students in the department with the numbers of students taking each combination.

(6) (a) Number of free-studentships and scholarships in each department.

(b) Number of Post-Graduate Free-students also reading in Law College.

(7) Number of Research Assistants in each department.

(8) Arrears in fees excused in each department for the last three years.

*Note.*—The Class Registers for all departments for the last year as also for this year are to be supplied to the Committee.

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*Colleges.*

(1) The number of teachers of the College engaged in Post-Graduate teaching with the dates of their appointment, terms of their appointment including salaries and increments and period of appointment.

(2) The age, qualifications and published research work (with dates) of each of the above teachers.

(3) The age, qualifications and published research work (with dates) of any other teachers whom the Principal considers fit to impart Post-Graduate teaching.

(4) Whether proposals for appointment as extramural lecturers had been made by the College? If so, the names, qualifications and published research work (with dates) of gentlemen proposed for such appointment.

(5) What kind of control by the University would the authorities of your College be willing to accept over such members of their staff as may be lent to the University for Post-Graduate teaching?

(6) Do you consider the present relationship between the Colleges and the Post-Graduate Department to be satisfactory?

(7) Are you satisfied with the present mode of appointing University Teachers? If not, what suggestions would you make?

(8) Do you consider the grades of pay or fixed salaries, as the case may be, of University Professors, Lecturers, Assistant Lecturers and Demonstrators to be adequate and the terms of their appointment and the present Provident Fund rules satisfactory?

(9) Are you in a position to take up Under-Graduate teaching in any or all of the following subjects :—

(a) B.COM.

(THIRD-YEAR AND FOURTH-YEAR)

*Compulsory Papers.*

(i) General Economics.

(ii) Indian Economics.

- (iii) Accountancy.
- (iv) Inland and Foreign Trade.
- (v) Business Organisation including Commercial Correspondence.
- (vi) Commercial Law.
- (vii) Economic Geography.

*Optional Papers.*

- (viii) Advanced Accountancy and Auditing.
- (ix) Banking and Currency.
- (x) Agricultural Economics.
- (xi) Economics of Transport.
- (xii) Industrial Organisation.
- (xiii) Vernaculars  
e.g., Hindi, French and German.

(b) B.Sc.

(THIRD-YEAR AND FOURTH-YEAR)

- (i) Experimental Psychology.
- (ii) Physiology.
- (iii) Zoology.
- (iv) Anthropology.
- (v) Mathematics.

*N.B.*—Please also state whether you are in a position to arrange for combinations of Experimental Psychology with other subjects noted above.

(c) INTERMEDIATE AND B.A.

(1ST, 2ND, 3RD AND 4TH (INCLUDING HONOURS) YEARS)

- (i) Pali.
- (ii) Persian.
- (iii) Arabic.
- (iv) Linguistics.

(d) LANGUAGE CLASSES FOR ALL STUDENTS.

- (i) Tibetan.
- (ii) French.
- (iii) German.

## ENQUIRIES FROM OTHER UNIVERSITIES IN INDIA.

1. The scales of salary normally payable to Professors, Readers, Lecturers, Assistant Lecturers and other teachers.

2. Whether any appointments are made outside the above scales.

3. The terms of agreement including conditions of service, Provident Fund, etc., ordinarily applicable to teachers of the different grades.

4. (a) The subjects taught and the number of teachers in each department with their grades.

(b) The number of students reading in each department—Under-graduate and Post-graduate.

5. The amount and type of work—Post-graduate and Under-graduate (to be shown separately), usually done by teachers in different grades; (teaching, tutorial, practical and seminar work to be taken into account).

6. Whether there are any posts in the University mainly for research work.

7. Whether alternative courses or groups are allowed in any subject—if so, a statement of the number of such alternative courses in each department.

8. A statement, if available, of research work done by different University teachers (with dates of publication, if possible).

9. Whether there are part-time teachers, either from affiliated colleges or from outside, doing Post-graduate work; if so, their scale of salary and conditions of service.

10. The retiring age, if any, of University teachers:

11. Leave Rules applicable to teachers.

12. A copy of the annual Budget of income and expenditure of the University.

The total amount, if any, paid by the Local and Imperial Governments to the University.

13. Fee rates payable by students reading I.A., I.Sc., B.A., B.Sc. (Pass and Honours), M.A. and M.Sc., B.L. and M.L.

14. Examination fees for all examinations.

15. Fees payable to Paper-setters and Examiners (Internal and External).

Fees payable to invigilators.

16. Scales of salary for the administrative staff—their conditions of service (Provident Fund rules, or Pension scheme, retiring age, etc.), Leave Rules, office hours including over-time, if any.

## APPENDIX No. 3.

## APPLIED PHYSICS.

Regarding the subject of Applied Physics I beg to submit :—

*Firstly :*

The designation Applied Physics has been clearly stated in the letter of the Donor (*vide* University Calendar, 1928, p. 157), where he stated " By Applied Physics " I mean one or more of the following subjects as suggested in the report of the Calcutta University Commission :— " Electrotechnology, Applied Thermodynamics and Standardisation of instruments."

Accordingly the Syllabus of Applied Physics was based on the above intention of the Donor and now it forms a part of the Regulations.

The Syllabus can be divided into two parts—

The *first* part considers a study of the general principles of Electricity and Magnetism and Heat as is needed to supplement the knowledge of the students in these subjects to what they have acquired in their B.Sc. stage. Lectures on this part of the subject is at present delivered by the Pure Physics Staff.

*The Second part or Applied Physics Proper :*

The syllabus deals with—

1. Properties of materials needed in Electrical Engineering practice.
2. Theory of the design, construction and working of
  - Electrical Machines.
  - (a) Direct Current Machines.
  - (b) Alternate Current Machines.
3. Theory of Transmission of Electrical Energy.
  - (a) High Power Transmission.
  - (b) High Frequency Transmission  
(this includes the theory and practice of Radiotelegraphy).
4. Measuring Instruments in Electrical Engineering Practice.
5. Applied Thermodynamics.  
(this includes the theory and practice of Head Engines as Prime Movers).
6. Theory of structures and strength of materials.
7. A course of Drawing and Workshop practice.

The authorities of the Bengal Engineering College have kindly agreed with the sanction of the Bengal Government (Education

Department letter No. 1095-Edn., dated the 20th March, 1926) to take the students from our place as resident students of the same institution for two months in the year (*i.e.*, nearly one-third of their academic term), for the teaching of the items Nos. (5), (6) and (7) stated above.

Besides this it has also been arranged that the students get the advantage of practical training during the Summer Vacation in some Electric Power Stations.

Further the following list of the equipments of the present Technical Physics Laboratory will clearly indicate how differently it is related to the Pure Laboratory.

*Electrical Machines :—*

1. One Motor Generator Set (G.E.C.)  
25 H.P. D.C. Motor and Six-phase 220 volt. 16 K.V.A. 60-cycle A.C. Generator.  
5 H.P. Motor and Single-phase 250 volt. 3.5 K.V.A. 60-cycle A. C. Generator.
3. Two H.P. Rotary Converters 220 D.C./140 A.C. 3-phase 50-cycles.
4. One Motor Generator Set (Siemens).  
4.5 H.P. D.C. Motor and 3 K.V.A. 3-phase A.C. Generator 50-cycle.
5. One Induction Generator Set.  
One 4.5 H.P. D.C. Motor and 2-3 phase 3 K.V.A. Induction Motor.
6. Two 3-phase Induction Motor Squirrel Cage type 3 H.P.
7. One Repulsion Motor Single-phase 1 H.P. 50-cycle.
8. Two Motor Generator Set for D.C. working.
9. One 3.5 K.W. D.C. Generator for 110 volts. (as exciter).
10. One Motor Generator Set.  
10 H.P. Motor D.C. 440 and 8 K.W.A. 200-cycle 110 volt. Single Alternator.
11. One Testing Transformer 200/20,000 volt Transformer  $2\frac{1}{2}$  K.W. 50-cycle.
12. One Power Transformer for 200-cycle. 110 volt to 10,000 volt.
13. Two K.W. Single Transformers.
14. 4 other Motors for A.C. and C.C. working.

*Heat Engines :*

- 14/16 H.P. Crossley Semi-Diesel Crude Oil Engine (two-cycle).

2. 20 H.P. Petrol Engine 4-cycle (Explosion type).
3. 10 H.P. Crossley Producer Gas Engine.

The laboratory is situated in a different building separate from the Pure Physics and the experimental work of the students are mainly conducted in this laboratory. At present there is a great congestion due to want of space and the equipment is far from complete. The laboratory was only started in 1925.

The whole scheme of the laboratory as well as the syllabus for the course was initiated by the Professor-in-Charge who was specially deputed for the purpose by the Ghose Board and the Senate to Europe. He formed the scheme after visiting different centres of education in Europe and after undergoing a course of training in the Electrical Works of Siemens and Schukert and Siemens and Halke in Berlin for two years. The syllabus was framed after consultation with the leading authorities in Electrical Engineering in Europe and after due consideration to our local needs and conditions.

Regarding the importance attached to pure subjects it may be incidentally mentioned that only 75 marks are allotted out of 400 marks for the theoretical papers.

In consideration of the above facts it is clear that if the departments of Applied Sciences are to be retained by the University and if their proper developments are to be encouraged the applied departments should not be joined with the Pure Physics and a single authority should not be placed over both the departments. Apart from the purely academic aspect and the importance of the department as nucleus of industrial education for our youngmen it demands that a single authority should be placed over it who would devote his sole attention to the proper working as well as to the proper development of the department which has only been recently inaugurated through the munificence of one of our noble countrymen.

It will not be out of place to consider the practice that has been followed in other Universities where they have courses of students both Pure and Applied in the sense that has been stated above.

London :

*Imperial College of Science and Technology.*

Besides the departments of Pure Physics they have the department of Applied Optics working under a separate head in the same building.

*The City of Guilds of London Institute.*

It has no pure department since the Imperial College is associated with it but each of the Applied Department has different heads.

*King's College.*

The Applied Departments are quite distinct from the pure and has independent heads.

*Sheffield :*

The Applied Departments consisting of Engineering, Metallurgy, Mining, Glass, Technology are under different heads.

*Birmingham :*

Besides Pure Department they have Mechanical, Civil and Electrical Engineering and Metallurgy and Mining each working under independent heads.

*Leeds :*

Besides the Pure Departments, there are the technological departments as Departments of Leather Industries, Textile Industries which are worked under independent heads.

*Paris :*

Besides the Pure Departments they have a number of Applied Departments and each of them is independent.

*Berlin :*

In Technische Hochschule which is the Applied Science Department of the University there are a number of departments and each one has a different head and each one is independent of the other.

P. C. MITTER.  
*Ghoṣh Professor of Chemistry.*

P. N. GHOSH,  
*Ghose Professor of Applied  
Physics.*

A NOTE ON THE ORGANISATION OF THE APPLIED CHEMISTRY  
DEPARTMENT BY DR. H. K. SEN.

Now that the Re-organisation Committee is deliberating upon academic and administrative problems relating to the various departments, I would take this occasion for drawing their attention to a few more important points that are vitally connected with the development of the department of Applied Chemistry.

1. The practice followed at the present moment does not give sufficient opportunities to the students of the department to devote more time to the acquirement of a greater detailed knowledge of the more important portions of technological chemistry. This is due (*a*) to the unusually long course of lectures which the students of this department are obliged to attend in the 5th-year class with the pure chemistry students for want of specially prepared course of lectures to meet their requirements as contemplated in the Regulations (*vide* p. 271). It has not been possible during 9 years in spite of repeated attempts to arrange for this specially prepared course, partly on account of insufficiency of teachers and partly on account of the unwillingness on the part of the members of the Board. As a consequence the students of the department of Applied Chemistry were obliged to attend unnecessarily, throughout the 5th-year, the course of general lectures delivered in Pure Chemistry. Whilst admitting that such lectures in a limited way, can help the students in their basic training which they had already begun in their B.Sc. Classes, I am of the opinion that I believe most of others of my colleagues are—that a specially graduated concentrated course would have helped the students much more than is at present being tried through an ill-assorted course of lectures. After very careful consideration with some of my colleagues I have come to the definite conclusion that such a suitable course would be delivered in less than 12 weeks (24 weeks being taken as the actual working period in session). If the B.Sc. course were a little higher than is at present (this is already contemplated and partly brought about in the new B.Sc. Pass syllabus to be introduced in 1930), the 12 weeks of preparatory lectures referred to above could be considerably reduced.

2. As at present there is no practical course in Physical Chemistry in the B.Sc. course. This is therefore supplemented in the physical chemistry laboratory by a course of practical training extending over 8 weeks or less. For the last 9 years this practical course has been the same as followed by pure chemistry students. Although so far as basic training is concerned it is

useful, it could be made more useful and in line with the spirit of the Regulations for Applied Chemistry teaching if this experimental course in physical chemistry were devised from a practical point of view. How far this course in practical physical chemistry can be given in the existing physical chemistry laboratory and how much more is left to be completed in reference to the technical application of such principles in the industries is a matter of adjustment between the physical chemistry laboratory and the technical laboratory and workshop under the department of applied chemistry. There are portions in technical chemistry the physio-chemical aspect of which form a substantial part and which are carried out in the technical laboratory and not in the physical chemistry laboratory; this is the recognised practice. For example, the subject of fuels, furnaces and pyrometry is treated exclusively in a technical laboratory, although an exposition of the basic principles finds place in a course of lectures in physical chemistry. It would not be correct therefore to say that there is over lapping as the scope of the treatment of the subject in the two departments must need be very different. For the purpose of proper organisation these two departments must be treated separately, although mutual co-ordination is not excluded. Thus it is often the practice in various Universities to direct students of one department to receive a course of training on a particular subject in another department to which the students are not attached.

3. As will appear from the appendix enclosed 455 lectures are necessary to cover the *purely technological* course of students for which the present staff (two Lecturers and a Professor) is absolutely insufficient. This would further appear from the following analyses. Reckoning on the basis of at least 20 hours, if not 22 or 24 of practical work per week, as there are about 30 students in the department in order to conform to the Regulations it will be seen that the practical class alone would absorb the present staff and that how in need of men the applied chemistry department is. The number of lectures now delivered is insufficient for a full treatment of our syllabus on a Post-Graduate standard.

The minimum staff necessary to cover the course would be—

Professor	...	...	1
Lecturers	...	...	2
Asst. Lecturer	...	...	1
Part-time Lecturer	...	...	1

4. As you must be aware the capital grant so far to the department of applied chemistry falls far short of the actual requirement for well-equipped, useful department. After very careful

consideration it has been found that a capital grant of at least Rs. 50,000 at this stage is necessary for the development of the course of training in applied chemistry.

5. Separation of the department of applied chemistry from that of pure chemistry :

It would be admitted having regard to the very important influence which a properly organised department of technological chemistry is likely to exercise on the development of the economic resources of the country, this course of study should be under a Board of Higher Studies in Applied Chemistry. It may be added in this connection that the principle of having the pure and applied chemistry department or for the matter of that even the different laboratories of Inorganic, Organic and Physical Chemistry, controlled by one Head is against the best interest of teaching and organisation. The high degree of specialisation in the Post-Graduate course makes the difficulty and danger of administration of any laboratory by a non-expert all the greater. This is also clearly against the conditions which the Senate laid on itself at the time of accepting the trusts since the Senate lays down that the duty of the Professor shall be to superintend and maintain the laboratory in the College of Science in his own subject. (*Vide* Calendar 1929, p. 127, 160 Ic.). It is desirable that a system which has been working for the last 15 years should not be brushed aside in favour of one of very doubtful utility, which will not only involve probable increase of expenditure but may produce unnecessary friction. The co-ordination between the different sections has been secured in the past by a Standing Committee and if necessary its powers might be increased.

6. After a working of 9 years during which 7 examinations has been held, 80 students appear to have passed from the department of Applied Chemistry. Of these to our knowledge 68 are occupying fairly good position mostly being in the technical line.

This record I venture to observe would justify further consolidation of the department in order that its activities might increase.

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The following will show the scope of the subject of Applied Chemistry so far undertaken by us, and the number of lectures and the extent of practical work will also be clear.

I. General Chemical Technology which includes the treatment of all the more important industries, *e.g.*,

	Minimum No. of lectures necessary to cover a Post-Graduate Stan- dard.
1. Acid and Alkali industries	20
2. Cement, mortar, glass, porcelain, enamel, photo-ceramics	15
3. Pigments	5
4. Heavy Chemicals	7
5. Rare Earth	3
6. Industrial Gases	10
7. Sugar	5
8. Paper and Cellulose	5
9. Leather	5
10. Rubber	3
11. Coal tar distillation products including disinfectant	4
12. Dyes	10
13. Organic Chemicals	10
14. Drugs and Chemo-therapy	15
15. Wood distillation	2
16. Artificial Silk	2
17. Hydrogenation Industries	5
18. Electro Industries	8
19. Fertilisers including Synthetic pro- ducts	5
Technical water, etc., etc.	2
	141

II. Fuels, Furnaces and Pyrometryo.

Fuels, solid, liquid, gaseous, synthetic fuels, etc., including power gas generation, producer efficiency and general thermo-chemistry	10
Furnaces including refractories modulus of conductivities, draft permeabilities, analytical methods stress and strain, action of Chemicals, etc., etc.	10
Pyrometry, including special consi- deration of optical and radiation pyrometers	6

## III. Chemical Engineering :

Power production : Boiler, steam and  
internal combustion engines ... 30

Chemical plants : conveyers, elevator  
pumps, choice of metals, contain-  
ers, compressors, grinders, sifters,  
rollers, driers, evaporators (single,  
and multiple effect portion, etc.),  
still's, nitration, chlorination,  
reduction, sulphonation plants,  
filtration, etc., etc. ... 60

IV. Costing and Factory lay-out ... 3

Elements of Electrical Engineering 20

V. Metallurgy ... 15

— 154

## VI. Special subject—

(i) Fermentation ... 50

(ii) Oils, fats, soaps, etc. ... 60

(iii) Silicate industries ... 50

— 160

Total ... 155

## APPLIED CHEMISTRY.

I. Chemical technology—dealing with the more important  
industrial products.

## II. Chemical Engineering—

(i) fuels, furnaces and pyrometry,

(ii) chemical factory elements and machine drawing,

(iii) steam and internal combustion engines,

(iv) elements of electrical engineering.

## III. Metallurgy.

## IV. General and special technical analyses

V. One special subject from the following :—

- (a) Fermentation
- (b) Fats and oils including glycerine and soap
- (c) Silicate industries (glass, porcelain, enamel, cement, etc.)

VI. Practical work in connection with the special subject.

VII. General workshop practice.

This division of the course is in fair agreement with the division followed elsewhere except that a fuller treatment of the subjects indicated are undertaken by such institutions as the Royal College of Science, South Kensington, London. We have not been able to provide for this fuller treatment during the last 9 years on account of insufficient number of teachers as also money to equip our workshop as well as is necessary for imparting a really useful post-graduate course of training. Every year we have pressed our points without any effect. That the number of teachers is insufficient will appear from a comparison of the numerical strength of our staff with that in the Royal College of Science, London, for a similar course. Under the heading "Department of Chemical Technology" appears (Page 182 of the Calendar for 1927-28) :

Professor—W. A. Bone, D.Sc., Ph.D., F.R.S.

Professor of Chemical Engineering—J. W. Hinchley, A.R.S.M., F.I.C., M.I.Chem.E.

Asstt. Professor—G. I. Finch, M.B.E. (Dip. Tech. Chem.-Zurich).

Lecturers—

(a) Technology of Fuels—Vacant.

(b) Refractory materials and silicate Technology—W. C. Hancock, B.A., F.I.C.

(c) Chemical Engineering—S. G. M. Ure, M.A., B.Sc., Mem.I. Mhem.E.

Demonstrator—W. E. Stockings, M.Sc.

The course of Chemical Technology at the Royal College of Science extends over a period of two years only and the number of students taking advantage of the course is generally below 30 in both the years, a number which curiously approximates our own. The staff at the College of Science in the University in the Department of Applied Chemistry consists of one Professor, one Lecturer (Dr. M. N. Goswami, M.A., Dr. es Sc. en chimie), in charge of the Practical Laboratory, general organic technology and the special technology of fats and oils, and a lecturer in Chemical Engineering (Mr. B. C. Roy, M.Sc., Leeds). With 3 men to cope with the same amount of work as in the Chemical Technology of the

Royal College of Science, London, is naturally absurd and we can only say that our insufficiency in the number of teachers of the Department, is preventing us from doing full justice to our proposed syllabus. That we have felt it since the last few years will be evident from the continued demand by the Board of Higher Studies in Chemistry for a Demonstrator and a Lecturer in Physical Chemistry to be attached to the department of Applied Chemistry. It is probably necessary here to indicate what the duties of these two teachers would be in the event of their being sanctioned by the University. The Demonstrator is required for helping the Lecturer and the Professor in practical work, whilst the Lecturer in Physical Chemistry is intended to supplement special lectures particularly those on fuel, furnace, pyrometry, etc., in which a substantial portion of the work in the workshop can only be done by one trained both in Technology and Physical Chemistry. In fact this Lecturer would have to undertake most of the work whether of the organic or inorganic nature that has special reference to physical aspects. He would not be one to direct the simple class exercises set for the general Physical Chemistry students of the Pure Chemistry department but one that would have to specialise in the practice of Physical Chemistry in technical operations. The function of such a man can only be useful in a technical research laboratory as already obtains in the College of Science under the department of Applied Chemistry. We understand that Sir P. C. Roy has sent a subsidiary memorandum pointing out the advisability of placing this proposed Lecturer in Physical Chemistry under the Professor of Physical Chemistry. We do not however quite see what useful purpose may be served by the arrangement as the nature of work for which he is required is not to give to the student elementary exercises in physical Chemistry, which scarcely takes more than 8 weeks to go through. He is really intended for the purpose of initiating much larger and more important studies which people trained in technological chemistry have a clear vision of. It is on this account that the Board of Higher Studies in Chemistry has always indicated as to which department this lecturer and the demonstrator should be attached. We should observe however in this connection that if the Physical Chemistry Laboratory requires an additional staff for its routine work the question may be separately considered. With a full complement of 5 members on the staff of the Applied Chemistry Department we hope to attain a standard not hitherto realised on account of insufficiency of teachers. We would further point out that the technical chemistry workshop, which is the essential part in the teaching organisation of the Department of

Applied Chemistry should be liberally granted funds both capital and recurring in order that the students coming out through the mill may hope to be future captains of industry. We regret that although the department has made great strides and have drawn students from all Indian Universities, inadequate funds have been responsible for not enabling it to keep pace with developments in other Universities of the world. In this matter, the University has an obligation to the late Sir Rashbehary Ghose through whose munificence the new course of study was initiated. One cannot help observing here that the time probably has come when there should be a separate Board of Higher Studies in Applied Chemistry, as the scope of the subject is vast and hence for its development the direction of the department should be the function of a Board of its own. The department should have the direction of one who is familiar with the different branches referred to above. It will not be possible for one trained in Pure Chemistry to fully appreciate the needs of the department and to further its aims in all their details, just as will be equally difficult for a Technical Chemist to appreciate the needs and to foster the growth of the department of Pure Chemistry. It is on his account that in all modern Universities that claim to specialise in technical sciences, the departments both of Pure and Applied Chemistry have been placed under two separate heads (*vide* Calendar of the Royal College of Science, London). Considering the vital importance of the training in Applied Chemistry for the development of the economic resources of the country, we consider it will be a serious blunder if it is regarded as an adjunct to the Pure Chemistry Department. It is quite evident from the Trust that the Donor realised this point and made a special gift equivalent in amount to that for the pure science in order to initiate the study of the technical sciences. Our own experience in the past has shown that such an arrangement cannot make for real progress in a subject the training in which is being for the first time initiated in this country and which therefore requires closer attention of one or more specialists. The administration of the Technological Department should be in the hands of the Professor, who is to have the closest co-operation of a Board specially and separately constituted for this purpose.

In conclusion we should also draw the attention of the Organisation Committee to the necessity of instituting additional scholarships and stipends in order to encourage technical research amongst students who have had the necessary training in this University.

H. K. SEN.  
P. N. GHOSH.  
P. C. MITTER.

## NOTE REGARDING THE CREATION OF SEPARATE BOARDS OF HIGHER STUDIES IN APPLIED AND PURE CHEMISTRY.

When the Committee decided to publish the Memoranda received by it on the above subject, I expressed a desire to place my views as a Professor of Chemistry of this University on same and the Committee acceded to my request. I would point out that the references to the scheme of studies in Chemical Technology in the Imperial College of Science of London should be made complete by stating that the Calendar of the College definitely states that the above course is a "Post-Graduate Course" as understood in the University of London and the candidates taking up that course would have ordinarily obtained the B.S. Honours Degree of that University. Courses in specialised Chemical Technology, suited for a University Post-Graduate Degree, are drawn up on the assumption that the candidates have gone through the elements of Chemistry including Chemical Technology as taught in our Under-Graduate and M.Sc. Classes. If we were to introduce such a course, admissions must be restricted to candidates who have obtained the M.Sc. Degree in Chemistry. The present syllabus for Applied Chemistry was drawn up in the first instance by a Committee of which myself and the Professor of Applied Chemistry were also members. It has been based on the fact that the B.Sc. Honours students of our University are not fit to take up the courses of Chemical Technology with a view to qualify themselves for the M.Sc. Degree in Applied Chemistry unless they have first been trained as Chemists. With the present syllabus and present conditions, it will be a mistake to separate the Boards as there is common teaching, specially in view of the fact that none of the present staff engaged in Applied Chemistry teaching, excepting one, had any University training and adequate experience as Chemical Technologists, and the specialised type of training that we may arrange for will be of limited scope under present circumstances. If, however, it is decided to restrict admission to really "Post-Graduate" students, which means that it will be a Post-M.Sc. course, I have no objection to the formulation of syllabus etc. on that basis and to the creation of a separate Board. In that case, the appliances and fittings and even the Buildings of the present Applied Department would be inadequate and separate provision will be necessary.

15th November, 1929.

J. N. MUKHERJEE.

## APPENDIX NO. 4.

NOTE ON THE FUTURE OF ISLAMIC STUDIES BY KHAN  
BAHADUR AZIZUL HUQ.

The University of Calcutta was established in the year 1857, being incorporated by Act II of the same year, which was enacted for the purpose of spreading a liberal course of education among all sections of "Her Majesty's subjects." For all practical purposes, however the University did not give much attention to the problem of education among the *Mussulmans*. No provision was made for the teaching of Arabic or Persian and I believe, it was not till 1871 that the University of Calcutta decided to examine in Persian and Arabic for the Degree Examinations. To add to, almost the whole of the last century thought of education among *Mussulmans* solely in terms of what is known as Madrasah system, even though its failure was recognised over and over again and even though a Lieutenant-Governor of Bengal proposed the abolition of the Madrasah and the substitution of Professorship of Arabic in immediate connection with the Calcutta University or the Presidency College. The Madrasah system still lingers in a mutilated form having passed through many half-hearted reform measures, not satisfactory from any point of view, but all the same still drawing in a number of fine intellects; the University of Calcutta on the other hand, has not yet absorbed the study of Islam and Islamic culture in the courses of its studies nor has yet made adequate arrangements for thorough and advanced studies and researches in the subject.

With the gradual coming in of larger numbers of *Mussulmans* within the fold of University education, some critics have charged the University of Calcutta with lack of sympathy with the special intellectual aspirations of the *Mussulman* students. The truth is that very little constructive schemes have hitherto been placed before the University to adjust the scope of its work from this special point of view. In the present constitution of the University, it could not have been expected that the move will come from within the University itself.

The *Mussulmans* to-day, however, form about 15 per cent. of the total candidates in the Matriculation, 21 per cent. in the Intermediate (Arts) and 17 per cent. in the B.A. Degree Examinations and if the present advance continues, the proportion of *Muslim* students will soon reach higher figures in a few years' time. The *Mussulmans* represent more than half the population in the Presidency of Bengal and any scheme of the future reconstruction of the University must not fail to recognise the growing expansion

of education among the Mussulmans. Mussulman students of the University while being fully well grounded in the general subjects for study must also have opportunities to know the culture of Islam, its traditions and past, its place in history and its real significance in the stream of Indian life. Under the fostering care and guidance of the University must grow up a class of students imbued with the modern spirit, animated by progressive ideas, not, however, forgetting the old days of creative thought in Islam or the fact that they are citizens of a vast country which must ultimately aim at an intellectual unity harmonising the diverse cultural traditions of its constituent entities.

It is really in such a spirit this note is submitted for inclusion of higher studies and researches in Islamic culture and history within the University. India had her impact from Hinduism, Islam, Buddhism and Christianity, her teachings from the east and the west and is aptly described by the poet as the great beach in the ocean of the Greater man. It would not be a complete study of India if one of the streams—Islam, its past and its influence—is virtually left out from the scope of the University work. "In the highest education of the Presidency, Mussulmans and Hindus should both co-operate, each considerately respectful of the other's convictions and ready to preserve its cultural traditions within the wider framework of the University's corporate life." In its absence, there will not be a full interpretation of the needs of the public in this Presidency, which in a proportion of more than half embraces the faith of Islam.

The University of Calcutta must now give a definite guidance in studies of Islamic history and culture, instead of confining itself to what may be characterised as orthodox study of language and that even not entirely in a satisfactory manner. The Sadler Commission noticed that post-graduate studies in Arabic and Persian are not satisfactory. "The course prescribed for the M.A. Degree Examination in Arabic and Persian are neither so varied nor so comprehensive as those recommended in Sanskrit and Pali." It was brought to the notice of the Commission that "the teaching provided for M.A. Degree in Arabic and Persian is so poor that students after taking degree are not really competent to act as Professor in College." The Commission therefore recommended a fresh organisation of Arabic and Islamic studies in the University, but unfortunately very little has been done in this respect.

Even on a cursory glance, it will be noticed that the Post-graduate curriculum in Arabic is singularly deficient in giving proper guidance to the students in his advanced studies and rests content in merely naming certain books without in any way noting the line of advanced studies. Mainly confined to book

knowledge, an extraordinarily large part is devoted to mere translation work from Arabic to English and *vice-versa*. Philology finds no place in language study and test in the critical study of language and literature is only very meagre. A student is tested in his efficiency and ability in translation, explanation and paraphrasing. Almost similar, though slightly better, is the Persian curriculum and course of study.

The University must now give a new orientation to Post-graduate studies of Arabic and Persian and must provide adequate facilities for advanced studies in Islamic history and culture. The inauguration of the Asutosh Chair of Islamic Culture has brought in the realisation nearer the region of possibility but there must be a thorough overhauling of the entire system, if the activities of the Professor of Islamic Culture are not to be narrow and circumscribed.

I propose that there should be a Department of Islamic Studies and Culture with the Asutosh Professor as the head of the Department. The working of this Department will not be in a water-tight compartment but will be supplementary to the working of the general departments of the University. It will supplement the work of history in Islamic history, of philology in Scientific philology, of philosophy in Islamic philosophy and in similar manner. "In the past, owing to the fact that men of science have as a rule had no adequate training in Arabic and Arabic scholars have had no adequate training in science, great difficulty has arisen in studying the specialised contribution to Mathematics, Science, specially Astronomy, and Philosophy which form so important a part of Arabic writings." This is also true substantially of other arts subjects. The department of Islamic Studies will co-operate in all such subjects with the teachers in the general line in unfolding the contribution of Islam, studied scientifically and with thoroughness. It will in addition undertake a critical, scientific and literary study of Arabic, Persian and their Indian subsidiary language the Urdu.

This department will in addition to the study of languages thus aim at the elucidation of a great period of history and civilisation, will unite the critical and modern studies of Islam, of its culture, history and civilisation and will be sure to draw in the immediate and active sympathy of a great bulk of public opinion which unfortunately it has failed in the past.

I suggest that the following subjects be included in the subjects for study in the M.A. Examination.

I suggest that the M.A. course in Arabic shall include the following :—

Paper	I—Arabic Literature	...	...	100 marks.
„	II—Quoran	...	...	100 „
„	III—History of Arabic Literature	...	...	100 „
„	IV—A. Philology	...	...	50 „
	B. Grammar, Rhetoric & Prosody	...	...	50 „

Papers V, VI, VII and VIII—One of the groups to be selected from the Islamic history and culture.

M.A. course in Persian shall be as follows :—

Paper	I—Literature.
„	II—Special studies of Firdausi, Hafez and Rumi.
„	III—History of Persian Literature.
„	IV—A. Philology.
	B. Grammar, Rhetoric and Prosody.
„	V to VIII—Same as in Arabic.

M.A. course in Islamic History and Culture shall be as follows :—

Paper	I—General History of Pre-Islamic and Islamic, Arabia, Persia, and India.
„	II—Islamic Culture and Civilisation.
„	III—Teachings and Religion of Islam.
„	IV—Islamic Theology, its History with special reference to Indo-Iranic influence.

Papers V, VI, VII and VIII—One of the following groups :—

#### GROUP A.

##### ARABIC LITERATURE.

Paper	V—Critical Studies of Quoran.
„	VI—Quoranic Exegesis and Criticism.
„	VII—Apostolic Traditions.
„	VIII—Essay.

## GROUP B.

## PERSIAN LITERATURE.

- Paper V—Select period of Persian Literature. . .  
 „ VI—Persian Poetry and Poets.  
 „ VII—Political History of Persia.

## GROUP C.

## PHILOSOPHY.

- Paper V—Islamic Philosophy—Critical and Comparative.  
 „ VI—History of Philosophy in Islam.  
 „ VII—Special studies in Select Branch or period of  
 Philosophy.  
 „ VIII—Essay.

## GROUP D.

## INDO-ISLAMIC HISTORY.

- Paper V—History of Islamic India—Critical and Narrative  
 „ VI—Economic History of Moslem India.  
 „ VII—Development of Fine Arts and Architecture in  
 Islamic India.  
 „ VIII—Essay.

## GROUP E.

## HISTORY.

- Paper V—History of Islamic peoples and states up till the  
 end of the war.  
 „ VI—Caliphate.  
 „ VII—Constitutional History.  
 „ VIII—Essay.

## GROUP F.

## POLITICAL AND SOCIAL INSTITUTIONS.

- Paper V—Political Institutions.  
 „ VI—Social Institutions.  
 „ VII—Administrative System.  
 „ VIII—Essay.

## LAW.

- Paper. V—Islamic Jurisprudence.  
 ,, VI—Law and Legal Institutions.  
 ,, VII—History of Legal Development.  
 ,, VIII—Essay.

In making out the future reconstruction, let us not commit almost a parallel blunder as made in the last century that a Mussulman student has his only interest to-day merely in the higher language study of Arabic or Persian. For him also there is an empire of knowledge vast in extent and variety, suiting his special aptitude, requiring years of devoted study and researches for its exploration and exposition and fuller investigation. He also has his heritage and his fascination. Be it remembered that hitherto the University of Calcutta has done very little to meet this. May I therefore in all humility plead for its realisation and the necessary adjustment of the University on the lines indicated in the last few pages. Let us not forget the immortal lines of Sir Asutosh: "The University would be dead to the nation, if it were made to stand on a height of its own, isolated from the community."

M. AZIZUL HUQUE.

9-9-29.

## APPENDIX No. 5.

## NOTE ON LAW STUDIES BY MR. J. C. MITRA.

Now that the University Law College is working since 1st July, 1909, and the revised scheme of studies in law introduced later is in operation for nearly 10 years, it is necessary that the Committee should review its actual working during this period to see how far the results achieved justify its existence as a model college for special training in legal education.

There is one private College in Calcutta affiliated for the Law Examination and the results of its working during the last 20 years will show whether the same concession may not be allowed to other private colleges under similar conditions.

In establishing the University College it was the fundamental idea of late Sir Asutosh Mookerjee to prevent those students from joining the Law College who do not want to take up the subject seriously, but this remains a theory only as actual experience shows that the bulk of the students hardly care to read the prescribed text books on general principles of law in different subjects. They content themselves by reading notes and annotations and the orthodox method of passing the law examinations is to work out the answers to questions set in the previous examinations of 15 or 20 years.

Lectures on general principles of law are very important and the students can get considerable benefit out of them if they attend these lectures seriously and take proper notes on all important points dealt with in such lectures. Such lectures would be most effective if delivered by eminent jurists on each subject as was the system in vogue originally.

If the students are well-grounded on these general principles, then only they can profitably take part in the discussions in Moot Courts or follow them properly if they listen to the discussions.

With the annotated editions of various legal enactments containing the rulings under all sections to explain their exact meaning and scope they would be in a position to grasp them properly without any further help from teachers.

Such an arrangement will also give wider scope to the students to tackle questions independently—a point which has been strongly emphasised in the note of late Sir Asutosh Mukherjee.

It is necessary to ascertain how the system of correction of exercises and tutorial classes has been carried out in actual practice during the last few years and how far the students have

availed themselves of it in a serious way apart from mere attendance.

Under the recent orders of the High Court, Calcutta, the mere taking of the B. L. degree will not entitle the holder to get a license for practising in a District Court unless he serves one year's apprenticeship under a practising lawyer and passes a Chamber examination. Apart from a practical training in Court procedure attendance at the time of hearing of cases in Courts and following up the arguments on both sides will certainly be a more effective training than attending the discussions in Moot Courts.

It may be urged that the apprenticeship prescribed by the High Court will practically be more a formality but the same remark may well apply to the various courses of instructions we have prescribed, if the students do not apply themselves seriously. They have to pass the preliminary, intermediate and final examinations before they can get the B.L. degree but they will have now to pass a further examination which may be more searching and decidedly practical before they can practise in any Court.

The idea of having a large number of lectures has been abandoned in the revised scheme now in vogue and if the principle of good grounding on general principles of law is accepted and the students left to exert themselves for their own training there should be no objection to the curtailment of the present period of three to two years.

There seems to be no reason for preventing the Post Graduate students from joining the Law College if they can manage both. A large number of lectures are deprecated on the Post-Graduate side also and the students who have graduated may well be left to take care of themselves in the best way they can for either the M.A. or B.L. Examination.

Apart from the general question of organisation of the Law College two inner points require consideration as they have an important bearing not only on finances but also on questions of principle.

(1) The admission of part-time lecturers to the benefit of the Provident Fund Scheme is not only opposed to the provisions of the Provident Fund Act but it involves additional expenditure which can only be justified in case of those who carry pensionary privileges. Payment of compassionate gratuities to families on the death of such lecturers can only be treated as extravagance.

(2) The grant of leave concessions to part-time lecturers, who devote their time outside the Court hours to the Law College, is

equally objectionable and the additional expenditure involved can hardly be justified.

Lastly it may be pointed out that we have been incurring considerable amount of expenditure on the Law College and it is for consideration of the Committee if the results we have achieved or the benefits we have conferred on the students are commensurate with the expenditure we have incurred.

J. C. MITRA.

## APPENDIX No. 6.

REPORT OF THE SUB-COMMITTEE APPOINTED TO INSPECT THE  
REGISTERS OF CLASS ATTENDANCE.*Sub-Committee.*

- (1) Sir Jadunath Sarkar.
- (2) Prof. S. Radhakrishnan.
- (3) Dr. W. A. Jenkins.

We inspected the Class Registers of certain departments and ascertained the following facts :—

Normally 5th-year classes start about August 15 to August 20 of each year. In the first-year the average number of weeks' work as ascertained from the number of lectures delivered appears to be 20, while in the second-year it appears to be about 28. On an average the year's work may, therefore, be said to be about 25 weeks. The actual term of course extends for a period of 32 weeks but on account of the late starting of the 5th-year class, mid-term holidays, etc., the academic year may be said to consist of 25 weeks' effective work. In the Mathematics Department the classes for the Special Papers are not formed until after the Pujahs and from an inspection of the registers it appears that the 1st or 2nd week of December is the average time of commencement of these classes. The number of hours of lectures per week for these Special Papers is 2. We inspected the tutorial class registers of the English Department and came to the conclusion that these classes are not taken seriously by the students for the attendance is unsatisfactory. Certainly not more than one half the students attend these classes. Different groups are combined and held at the same time. This is possible on account of large number of the absentees. We recommend that in all cases absentees should be marked with an "a" and not by the absence of a "p," or as is in many cases done now by a dot. There are no tutorial records in certain subjects.

JADUNATH SARKAR.  
S. RADHAKRISHNAN.  
W. A. JENKINS.

## APPENDIX No. 7.

## FINANCIAL ADMINISTRATION.

*Board of Accounts.*

The constitution and functions of the Board of Accounts are laid down in Chapter VI of the Regulations.

As explained in para 3, its main duties are to prepare the Budget Estimates, audit the University accounts and the accounts of the Trust and Endowment funds, consider ways and means and the financial effect of any important measures in contemplation and make recommendations, when necessary, on all matters relating to the finances of the University. These instructions have been further amplified in the Budget Rules passed by the Senate, prescribing the detailed procedure to be followed in the preparation of the Budget Estimates and enjoining an examination of the progress of receipt and expenditure during the currency of the year, with a view to bring to the notice of the Syndicate any important features affecting the University finances, with suggestions as to any special steps that may be found necessary to take in that connection.

The "Accountancy" function is the least part of its duties and this work can be easily performed by a trained accountant. The important duties of the Board are to "audit" as well as to act as a financial adviser to the University, in order to ensure proper financial control.

"Accountancy" and "Audit" are such clearly different functions that no further explanation is necessary to indicate the difference. The audit function of the Board of Accounts is exercised through the Audit Officer. When this appointment was created it was definitely stipulated that though the Audit Officer will be appointed by the Syndicate and be subject to the usual disciplinary rules, his audit decisions will not be subject to revision by the Syndicate, but that when the latter disagree with his views the point should be left to the decision of the Board of Accounts, subject to the final order of the Senate.

When the Regulations were framed the Syndicate was the only executive authority and the provision that no member of the Syndicate can be a member of the Board of Accounts, is a perfectly sound policy which is universally accepted, as the efficiency of audit can only be secured by keeping the audit and the executive in water-tight compartments. Subservient audit is meaningless and if the executive is associated in controlling audit, all the value of audit is gone. The proposed reconstruction of the Board with

representatives of the executive is incompatible with audit function. An independent body must exist for the exercise of that function, specially when the Audit Officer himself is a servant of the executive and it is not practicable to have an independent officer for the purpose. Till the reconstruction of the University as a whole the present constitution of the Board of Accounts should continue with this reservation that none of its members should be connected with the Executive in any way.

Hardly any scheme can be inaugurated by an academic body, which has not a financial bearing and that body must also be responsible for the financial administration of that department, subject to the check of the Board of Accounts.

The best plan appears to be to have three sets of self-contained accounts—one for the Fee Fund, the second for the Post-Graduate Departments (Arts and Science) and the third for the Law College. The detailed heads of accounts under the main fund heads may have to be recast with reference to the changes in the administrative arrangements which might be introduced. These changes in the arrangement of detailed heads can only be suggested after the exact administrative arrangements are settled. Detailed changes in the accounts do not require consideration by the Organisation Committee and they should be settled by the Board of Accounts in consultation with the administrative authorities.

In the case of the Fee Fund, it is essential that before the estimates of income and expenditure of the different administrative departments of the University under the Syndicate, are considered by the Board of Accounts they should be first considered by the Syndicate.

In the case of Post-Graduate Department in Science, a remodelling of the accounts of the Department will be necessary. A co-ordinated estimate of requirements of the Post-Graduate Department in Science, the Science College and the Trust Funds, is to be made in the first instance.

In a similar way in the Department of Arts a co-ordinated estimate of the requirements of the Department will also be made.

At a meeting of the Budget Committees of the Post-Graduate Departments in Arts and Science and of representatives of the Syndicate and members of the Board of Accounts, these two co-ordinated estimates along with receipts (including Trust Funds and of such Funds as are available) will be considered. The present system of each Post-Graduate Department preparing its own estimates of expenditure only, without looking to the receipts ought to be abandoned. The relative claims of the different sections of the University and the apportionment of the contribution

of the Fee Fund and the Government grant will be adjusted by discussion at this meeting between the representatives of the bodies mentioned above and the Board of Accounts. The Budget Estimate will then be placed before the executive Committee and Councils for such observations as they may make. The Budget, thereafter, should be forwarded to the Board of Accounts to be laid with their comments thereupon before the Senate. The Board will advise on financial policy and explain the financial effect of every scheme put forward by the departments, on the present and future revenues of the departments and of the University as a whole.

Such a consolidated Budget should, for the purpose of indicating the financial working of each of these departments, show an adjusted account of the cost of printing, stationery and stamp, etc. This is practically the system which is followed in the preparation of the Budget Estimates of the Law College.

In the case of the Law College it has been felt by some that the present system of making an adjustment on account of rent and other charges is an anomaly which may be removed. No anomaly is involved in this procedure at all; but on the contrary these adjustments are necessary to show the exact results of financial working whereby one may know whether the College is working at a loss and if so, to arrange for augmenting its resources by increasing the rates of fees and the like. The charges for printing work done by the University Press for the Law College should similarly be adjusted in the same way as the cost of stationery and stamps supplied from the central stores.

These adjustments will of course be unnecessary if we abandon the present method of accounting and showing the transactions of the three departments under three fund heads, and have only one account showing the transactions of the three departments in three separate sections but with one closing balance. Such an arrangement will make it impossible to know the results of financial working of the Post-Graduate Departments and the Law College and will only lead to confusion.

Besides this, under the present arrangement the Fee Fund can afford relief to the Post-Graduate Departments by the payment of additional contributions and similar help may be given to the Law College, just as a proprietor of an affiliated College does when the College is unable to support itself. The Fee Fund would thus be a sort of reserve and should be kept separate and not fixed up with the receipts and expenditure of either the Post-Graduate Departments or the Law College.

There should be perfect harmony between the Executive and

the Board of Accounts and the position of the Board as audit and financial adviser should be accepted. There had been unfortunately cases of controversies between the Executive and the Board, which have involved increase of work all round. After the introduction of the various sets of rules relating to leave, Provident Fund, etc., many questions of interpretation and application of the new rules must arise and the most expeditious way of settling the points will be for the Executive to send their files informally to the Audit Officer who will record his opinion often consulting the Board of Accounts in cases in which he entertained any doubt. In examining the Office procedure it was noticed that considerable amount of work was involved when any items had to be passed formally through the Proceedings of a Body, while an informal reference will reduce the work all round.

In bringing up items before the Senate it will shorten discussion there, if in making proposals relating to expenditure, it is indicated that such proposals have been made with the concurrence of the Board of Accounts.

Heaps of proceedings of different Bodies are put up to the Senate for confirmation; and a rule should be laid down that in all such cases either the concurrence of the Board of Accounts or their remarks should be mentioned in the item where any expenditure is involved; in the past some items have been passed by the Senate without the remarks of the Board of Accounts. It may happen that none of the members of the Board may be present at a Senate meeting and even when some are present it is difficult for the members to remember whether the Board had considered any particular item. The sanction of the Senate should be considered as ineffective if in any case of expenditure which requires a previous reference to the Board of Accounts, it is passed by the Senate without the remarks of the Board of Accounts before them.

It should be made clear that the primary responsibility for financial control rests with the Executive while the audit is only a check. The Audit Officer will give the necessary help in technical audit questions, while the Board of Accounts will give the Executive their advice as financial adviser. The Executive and the Audit are the component parts of one administrative machinery—both working with the same end in view and there should be no feeling that the Audit is dominating the Executive. Though it is superfluous to mention, past experience makes it necessary to emphasise the necessity for the Executive to observe prescribed rules scrupulously and if any exception is called for, special sanction of the Senate should be previously obtained. Deviation from prescribed rules had been a fruitful cause for con

troversies between the Executive and the Board of Accounts, and the main reason for alluding to it is not by way of complaint but as a safeguard against such controversies which would otherwise assume an enormous proportion with the introduction of the proposed sets of new rules.

A big body like the Senate can only exercise a general control over the University finances and they must depend upon the different Departments making full provisions for requirements of each department within the limit of available resources. In exercising a general control the Senate would necessarily guard against any extravagance or avoidable expenditure and each member of the Senate will therefore be free to make any suggestion for retrenchment.

The present practice under which a member of the Senate can move a proposal for the provision of additional expenditure should be discontinued, as this will not only clash with the primary financial control vested in each Department, but will necessarily upset the whole scheme as presented in the Budget Estimates. It is to be expected that each department had already incorporated its requirements in the Estimates as presented before the Senate.

If in the course of the year, however, any member of a department feels that a certain expenditure not provided in the Estimates should be provided for or any additional grant under any head should be sanctioned, the proposal should be submitted to the Department concerned which will, if satisfied with the necessity for the expenditure, place the matter before the Board of Accounts so that they may consider ways and means before the matter is brought up before the Senate.

B. C. ROY,

*President, Board of Accounts.*

J. C. MITRA.

J. N. MUKHERJEE.\*

*Members.*

\* I sign subject to the proviso that the procedure regarding the passing of the Budget and the proposals relating to co-ordination of the resources of the different Fund Heads may require adjustment in light of the recommendation of the Organisation Committee.

J. N. MUKHERJEE.

## APPENDIX No. 8.

## (a) NOTE ON THE GENERAL OFFICE SYSTEM.

The detailed examination of the work of the different branches of the University Office reveals the necessity for the introduction of an office procedure with a more effective supervision of the work of each assistant by a responsible officer.

Taking up the Registrar's Department first, the general outline of office procedure should be as detailed below.

Under the present system the Receiving Clerk opens all the letters and marks each for the section to which it appertains. He sorts the letters by sections and enters them in a register under each section separately and sends the letters pertaining to each section in a Transit Register in which the numbers of letters sent are shown. The section receiving the same enters them again in a sectional Receipt Register which shows columns for disposal, etc.

The entry of the letters in the Receipt Register of the Receiving Clerk is a duplication of work which serves no useful purpose. If a letter has to be traced this can easily be done from the sectional Receipt Register with reference to the subject of the letter.

The procedure suggested is that the Receiving Clerk, when he opens the Dak, should have before him several cane trays, each marked with names of sections, and as the clerk notes on each letter the name of the section, he should put them in the tray for that section, so that at the end he will not have to sort the letters again by section, a process which must take some time, specially when the Dak is heavy on any day. The clerk should then take up the letters in each tray and enter them directly in the sectional Receipt Register and send them to the section concerned. The section should compare the letters received and sign as acknowledgment in a column in the register and return the same to the Receiving Clerk, so that he may enter further letters received during the day and send them again to each section. All registers must be sent back to the Receiving Clerk before the close of the office so that the registers may be used by him the next morning. Each section will thereby be relieved of the work of making entries of the letters in the sectional Register.

After disposal of each letter the present practice is to send the whole file to the Typing section. This practice can only lead to files being mislaid as the Typing section is only concerned with the typing of drafts and that section has nothing to do with anything else. The further procedure followed at present is that the files with fair copies of drafts are sent to the Despatch section and it appears that the Despatch section has to go through the draft to find out the enclosures that are to be attached to each letter. This imposes an unnecessary work on the Despatch section and there is always the risk of all the enclosures not being correctly traced. The section which has dealt with the case knows what enclosures should be attached to a letter and they can do this in a minute, while the Despatch section must go through the draft to find out what enclosures are to be attached. The proper procedure should be for the section which has dealt with a case to send the draft to the Typing section in a transit register which should contain separate columns to show the acknowledgment of the Typing section, and the date of its return and the same register may be used when the fair copies are sent to the Despatch section and a column should be provided to show the date of despatch. The section concerned, when it receives the fair copies of the drafts from the Typing section, should attach the enclosures before sending them to the Despatch section.

The Despatch Register should contain a column to show the value of stamps against each issue. The registers in use in the Controller's Department, Law College and Post-Graduate Department contain such a column.

The value of stamps in hand should be shown at the top of this column and when fresh indents are received they should be added to the balance. The daily issues should be totalled and deducted from the balance in hand and whenever fresh indents are made, the stock in hand should be verified with the account balance in the Despatch Registrar. This should also be done at the end of each month. This periodical verification is necessary to locate mistakes that may have been made in the entries of issues.

A Register of Stationery should be maintained in each department containing vertical columns for showing different kinds of stationery and their total value when each indent is received. A scale of stationery to be issued to each clerk for use in one month should be prescribed. A consolidated requisition for each section or group of sections should be made out and the issues should be entered in the Stationery Registrar.

It will not be necessary to show the value at all in these requisitions as the sole object is to keep a check on the issues and the balance of stock in hand. The value of each indent on the store-keeper is necessary as a check in grants for stationery.

To ensure an effective control over contingent charges against the sanctioned Budget grants each department should maintain a Contingent Register. The first column would show the date of payment and the next column "Description of Charge" and the other columns should show the different heads of contingent expenditure as shown in the Budget Estimates, the sanctioned grant being shown at the top of each column. As expenditure is incurred out of the Permanent advance it should be entered in this Contingent Register. For petty expenditure debitable to Miscellaneous heads, the entire details need not be entered in this register but in a separate register for petty payments the total of which may be entered in this register in one entry. When the Permanent advance is about to be exhausted, a line should be drawn across the register and the total for each column worked out.

The foolscap sheet voucher form now in use may have the contingent heads of expenditure printed on it so that it will be only a question of putting down the total figure under each column against the respective printed heads in the Voucher form.

The Voucher form should have two money columns—one to show the expenditure for the month which is to be recouped and the other column which is to be filled up only once at the end of the month to show the progressive expenditure up to the end of the month which has just closed. The check exercised by the Accounts Branch at present is to see that the grant under each head is not exceeded whenever any payment is made and if this check is considered essential the progressive figure will have to be entered on each bill. Responsibility for seeing that the grant under each head is not exceeded vests primarily on the drawing officer and if this condition is enforced, a monthly check at the end of each month by the Accounts Branch ought to be enough.

The present system under which spending departments send sub-vouchers in dribbles countersigned by the heads of departments, means entries of many items in the registers of the Accounts Branch, and departments running to Accounts Branch to ascertain how the grants under any head stand show a very

defective control by the drawing officer which would be remedied by the opening of the Contingent Register proposed.

As regards books for the Library and furniture separate subsidiary registers should be maintained, the total of each payment being entered in one entry in the Contingent Register. The Stock Register for furniture will serve the purpose of the Subsidiary Register.

After the month's total in the Contingent Register, two entries should be made for value of stamps and stationery received during the month from the Store-keeper as the charges are adjustable by book adjustments only and are not to be drawn in cash. The entries in the Contingent Register are necessary to enable the drawing officer to check the expenditure against grants.

There should be an Establishment Clerk in the section whose duty would be to maintain a register in which should be entered all grants of leave to the staff and this information should be embodied in the leave or absentee statement which is to be attached to each Establishment bill for each month. All grants of leave are to be entered in the Service Books or Service Registers and the fact of this having been done should be noted on the register and submitted to the Head of the Department when the monthly bill is submitted to him for signature. The certificate of the Establishment Clerk will enable the Signing Officer to sign the certificate on the Establishment bill. The office copy of the Establishment bill should be used for the purpose of the acquittance roll. All undisbursed amounts should be refunded by deduction from the amount of the bill and details for undisbursed amounts furnished to enable the Accounts Branch to check the amounts when they are redrawn.

This Clerk should maintain the Contingent Register.

The unwieldy books which are used for Registers of Graduates and Registers of Students should be changed. It was pointed out that the assistants concerned have to work standing when posting these registers—a state of things which calls for early remedy.

Two new forms have already been suggested—one for Register of Graduates and the other for Register of Students.

The column for date of annual subscription has been omitted as the date of registration gives the information. Different money columns have been provided for subscriptions of different years as the present method of entering payments for different years in manuscript in one column does not make it possible to

find out at a glance which graduates have not paid their annual subscriptions in the year with a view to removal of his name from the list of Registered Graduates. The year from which the annual subscription of a particular graduate commences can be effectively indicated by drawing a thick line across the columns for the years for which he has not to pay the annual subscription. The register can be of ordinary foolscap size and to avoid recopying of the registers fly leaves may be inserted to show payments of a large number of years—say 10 or 15.

For reducing the work of the office, forms should be prescribed in which applications for grants from colleges or applications from candidates for travelling fellowships and other scholarships should be submitted.

It was pointed out that the office has to go through long letters from colleges for compiling a tabular statement for submission to the Special Committee who recommend the distribution of grant. The form in which the tabular statement is now compiled should be prescribed as the form in which the college should apply and the work in connection with tabulation will be avoided. It sometimes happens that a college omits to give a particular information which is required to be shown and this information has to be obtained by further correspondence. This cannot happen if forms are prescribed and no application should be considered till the forms are received completely filled up.

The general system indicated above should be introduced in all departments and before it is finally adopted, all difficulties in its practical application should be considered and removed.

(b) NOTE ON THE OFFICE SYSTEM IN THE UNIVERSITY  
COLLEGE OF SCIENCE.

A lump provision is now made in the Budget Estimates for equipment and working expenses. For purposes of effective control it would be desirable to split up the grant to ordinary contingencies, chemicals and apparatus.

A register is now maintained to record the ordinary petty contingent expenditure. This register should be replaced by the general Contingent Register recommended for general office use—the headings of different vertical columns being changed to suit the requirements of each branch.

The present procedure for purchase of chemicals, etc., and apparatus is for the department concerned to send a requisition to the Registrar showing in detail the articles required and this

requisition is apparently passed by the Registrar after ascertaining whether there is enough provision to meet the expenditure.

This requisition should always be passed and countersigned by the Standing Committee who can check the necessity for the expenditure and if the lump provision is subdivided as suggested above, the department concerned should be in a position to know whether there is enough grant or not. The Committee should make itself responsible for keeping the expenditure within the sanctioned grant. The present countersignature of the Registrar does not mean any check on the necessity for particular expenditure on which the Standing Committee concerned can only exercise an effective control. This change, if not already introduced, should be effected without delay—the present lump provision being subdivided into the three heads mentioned, against which the audit would be conducted. The Standing Committee will have the authority to transfer savings from one sub-head to another according to requirements.

On an examination of the work in the Chemistry Department, it appears a Receipt Book is maintained in which articles purchased are entered chronologically and this is the primary record of all purchases. Stock ledgers are maintained, but they have not been filled up from the year 1926-27, so that it is impossible to have any verification of stock till the stock ledgers are completed.

A rule has been introduced that no bill for purchases of articles will be passed for payment unless the pages of the Stock Register in which entries are made are noted in the bill. The stock ledger pages are not shown, as they have not been filled but the pages of Receipt Registers are shown.

Want of staff was urged as the reason for leaving the Stock Register incomplete from 1926-27. The register should be made complete without delay. In this respect temporary help ought to be available from the staff of the Post-Graduate Department who have not much work to do during the vacation.

It was pointed out that some articles vary considerably in value according to the different firms which manufacture them and some chemicals may be commercial, ordinary, pure, and extra pure, the price varying considerably in different cases. At present they are all shown under one head in one page of the Ledger, but this would make the stock verification of different kinds of such a chemical impossible. The only solution is to open different pages of the ledgers to show the different kinds of the same chemical so that the stock in hand under each kind may be easily verified.

Some chemicals and other articles are purchased for conducting the practical examination of B.Sc. and M.Sc. students, the charges for which are met by the Controller of Examinations out of his grant for examination expenses. These are not always entered in the stock ledgers—either the purchases or the issues. This year a register has been opened to show the balance of stock left after the examination. There is no reason why separate ledgers showing the purchases and issues should not be opened and the balances left should be checked at the time of verification of stock which should be utilised for the next examination.

The separate expenditure incurred in purchasing chemicals and apparatus for the B.Sc. and M.Sc. examinations does not appear to be the most economic way of working and it should be seriously considered whether in future the chemicals and apparatus needed for examination should not be supplied from stock, and the departmental grant adjusted accordingly. In that case the provision in the Controller's Budget will be discontinued.

The Head of the Department should arrange for stock-taking in the long vacation each year and forward a report to the Registrar with an explanation of the discrepancies, if any.

At present all purchases made out of the Research grant of a Professor are entered at the time of purchase in separate Receipt Books and the articles are made over to the Professor concerned. The Professor does not maintain any account of stock-receipts and issues as he feels that he can use them as he likes. Some definite rule in this respect appears to be called for and the matter should be considered carefully by the different bodies.

As regards capital expenditure on construction of original works the usual rule about the submission of estimates, the grant of administrative and technical sanctions and a detailed specification of various items of work should be furnished to the Audit Officer for check—the existence of grant in the sanctioned Budget Estimates being of course the first condition.

Each student has to deposit a sum of Rs. 25 as security against loss and breakage of articles placed at his disposal. Till the student returns the balance of articles, the department does not know what amounts are recoverable on that account. Sometimes the loss may amount to more than Rs. 25 and in some cases a rule has been prescribed that the student is not permitted to appear in the examination till the excess is paid. In case of students who cease to attend after working for a few

months, no recovery of such excess becomes possible. To guard against this it would be desirable to prescribe that each loss or breakage should be reported immediately, so that a check may be exercised during the currency of the session and not delayed until the articles are returned. It may be that a student may break an apparatus of considerable value and in such a case the Department should in each case consider what penalty should be levied, necessary note being made at the same time in the stock ledger of the Register.

The individual account of each student's deposit is said to be kept in the office of the Secretary, Post-Graduate Teaching in Science, and it is for him to report the loss to the Audit Officer who should make the necessary adjustments, the Secretary's office noting the adjustment in the deposit account of the student concerned as well as the amount if any refunded.

The libraries of the different science departments are located in different rooms and are separately controlled. It has been suggested that the room now allocated to the Calcutta Mathematical Society could, with advantage, be utilized both for this purpose and for a science library in which all the departmental libraries are located. This would set free several small rooms, one of which would be available for mathematical lectures and might result in a more economical management of the libraries. The Governing Body of the College of Science should be asked to report on this matter.

The suggestions made above are based mainly on an examination of the Chemistry Department, but they should be carefully considered by all departments.

#### (c) UNIVERSITY PRESS.

Under the present arrangement the calculation of the earnings of the piece-rate workers and the overtime allowance amounting in all to about Rs. 3,000 a month is left entirely to one computer. The items checked by the Superintendent should be recorded in future and the Press Committee may decide the percentages of check that should be applied by him.

J. C. MITRA.

## APPENDIX No. 9.

## THE TWO NOTES ON THE ENGINEERING ESTABLISHMENT.

## I

Two temporary appointments—overseer and caretaker are included in the Establishment of the Registrar.

An allowance of Rs. 2,000 a year is paid to an Engineer Contractor who acts as expert adviser to the University in all Engineering matters. The arrangement with him is that he is to prepare plans and estimates for all original works and is to get a commission of 2 per cent. on all capital outlay exceeding Rs. 10,000. He is also entrusted with keeping a stock account of all furnitures and he furnishes quotations for all articles of furniture required for the various Departments of the University.

The Overseer attached to 35, Ballygunj Circular Road, who acts as caretaker produced a large number of measurement books to show the detailed records of measurement, etc., taken by him in connection with the additional construction on the Ashutosh Building for which Government paid a grant of Rs. 1,85,000.

The commission payable to the Engineering Contractor is apparently meant for his supervision during the progress of construction and the entries in the measurement books form an important part of his duties.

We do not favour the idea of payment of commission for supervision work apart from the fixed annual allowance nor do we consider the appointment of an Engineer Contractor as desirable.

The preferable arrangement in our opinion would be to appoint a whole-time Engineer on fixed allowance who will be in charge of all the buildings and the caretaker (overseer) should work under his orders. The Engineer will act as the Expert adviser to the University subject to the control of a Works Committee which we recommend should be constituted from among the members of the Senate who have Engineering qualifications. This Committee should call for tenders with the usual detailed specification for all original works and repairs and decide the tenders that should be accepted.

It will lead to considerable economy if all requisitions for furniture required for the various departments of the University including the Law College are sent to the Engineer who will arrange for the supply after getting quotations from different firms. It is well-known that the price of a chair, table, almirah or a rack may vary considerably according to its nature and quality

and the Works Committee may prescribe standard patterns with reference to the purpose for which it is required.

The charges on account of electric energy consumed each month are growing higher and higher and some effective check through the Engineer is very essential.

Considerable amount of expenditure is being incurred for the purchase of examination tables, etc., by the Controller of Examinations. No stock account is maintained nor is there any one to supervise that they are preserved properly. Sometimes cheaper tables, etc., have been purchased which have fallen to pieces within a short time and the Controller has neither the time nor any special knowledge as to the kind of materials which may have higher prices but would be cheaper in the long run on account of their lasting for a much longer period than cheaper stuff. The Controller's Establishment should keep a stock account subject to the supervision of the Engineer.

J. C. MITRA.

## II

The Engineering establishment is now constituted as follows :—

(1) A Consulting Engineer whose functions are—

- (i) To prepare estimates and plans (if necessary) of repair works,
- (ii) to prepare plans and estimates of new works,
- (iii) to prepare specifications and to call for tenders,
- (iv) to supervise all contract works,
- (v) to check bills for work done,
- (vi) to maintain a stock register of furniture,
- (vii) to supervise the University Buildings including the hostels and to submit a monthly report.

The Engineer is paid an allowance of Rs. 2,000 a year. For all new works costing more than Rs. 10,000 he is also paid at the rate of 1 per cent. on the amount of the estimate and  $2\frac{1}{2}$  per cent. on the cost of construction as supervising fee.

(2) An Overseer whose duties chiefly are—

- (i) To supervise daily all the works, original or repair, and to report to the Engineer any defects in them,
- (ii) to inspect the University Buildings once a week and to report on their general condition. He is also to report on any matter concerning the University Buildings on the requisition of any department,

(iii) to maintain a stock register of fans and furniture (including electric fittings, pictures, etc.), under the direction of the Engineer, and to verify them once a month,

(iv) to supervise the work of the electric and plumbing Mistries and also of the masons (during the rains) and to supervise the working of the electric lift and to countersign the maintenance bills in respect of the electric lines and fittings, sanitary arrangements and the electric lift,

(v) to check the readings of electric and gas meters and to check bills for consumption of electricity and gas,

(vi) to help the Engineer in maintaining a schedule of rates, checking quotations, preparing specifications calling for tenders, preparing statements and checking bills for work done or materials supplied.

(vii) He is also required to take necessary action in cases of sudden breakdown of electric or plumbing arrangements in consultation with the proper authorities. The Overseer receives a monthly salary of Rs. 100.

(3) A Caretaker : The present Caretaker is also the Sub-Agent of the Palit Estate and his duties are—

(a) As Sub-Agent : Collection of rents of Palit Properties, making arrangements for the payment of Government revenue and cess in respect of them and inspection of the Palit Buildings for the submission of a detailed report concerning them, any encroachment by neighbours or any unauthorised action by any person likely to cause loss or damage forming part of the report.

(b) As Caretaker : Maintenance of the attendance register of menials, supervision of the work of the sweepers, Farashes and the Mali, making necessary arrangements for meetings, public lectures and other like functions and supervision of the work of the clock windér. He is also required to go round the buildings giving special attention to the state of cleanliness obtaining in the different parts of the buildings. He has also to make necessary arrangements for having the floors of rooms and Verandahs thoroughly washed with disinfectants at regular intervals and, if necessary, he has to attend office on holidays.

The present Caretaker receives a consolidated salary of Rs. 80 per month and has been allowed to retain his lien on his appointment as Sub-Agent of the Palit Properties on Rs. 60 per month.

The present arrangement is working satisfactorily. But it would certainly be a great improvement if the Caretaker is provided with residential quarters within the University Compound.

## APPENDIX No. 10.

## Offices.

## Registrar's Department.

Name.	Year of appointment.	Salary from 1-6-29.
REGISTRAR.		
Grade—800-50-1,000.		
Rai Jnanchandra Ghosh, Bahadur, M.A.	... 1917	1,000
Allowance	... 1919	150
ASST. REGISTRAR.		
Grade—250-25-500.		
Mr. Jogeschandra Chakravorti, M.A.	... 1921	500
AUDIT-OFFICER.		
Grade—250-25-500.		
Mr. Sailendranath Bose, B.A.	... 1909	475
Grade—200-10-300.		
Babu Amritalal Basu, <i>Office Supdt.</i>	... 1889	260
,, Kartikchandra Dasgupta, B.A.	... 1909	260
Grade—100-10-200-10-250.		
Babu Radhacharan Mukerjee, M.A.	... 1915	240
,, Basantabihari Chandra, M.A., <i>Librarian</i>	1917	240
Babu Amarendranath Chatterjee, <i>Cashier</i>	... 1909	210
,, Surendranath Ghosh, M.A.	... 1917	210
,, Bijaygopal Biswas	... 1907	200
,, Manindrakumar Bose	... 1912	200
,, Nisikanta Sengupta, M.A.	... 1919	200
,, Prabodhchandra Mukerjee, M.A.	... 1919	200
,, Hemendranath Chatterjee, M.A., B.L.	... 1920	200
,, Bibhutibhushan Chatterjee, <i>Accountant</i>	... 1909	190
Allowance	...	30

Name.	Year of appointment.	Salary from 1-6-29.
		Rs.
,, Prakaschandra Banerjee, B.A.	... 1915	190
,, Sisirbihari Basu	... 1914	175
,, Bankimchandra Datta, B.A.	... 1919	165
,, Kiranchandra Sen	... 1909	150
,, Dhirendranath Mookerjee	... 1911	150
,, Nirmalprakas De, M.A.	... 1925	150
,, Lokendranath Pathak, M.A.	... 1923	140
,, Janakinath Banerjee, B.A.	... 1926	120
,, *Sailendranath Biswas, B.A.	... 1919	120

## Grade—60-5-100-5-150.

Babu Dwijendranath Mukerjee, B.A.	... 1919	150
,, Arunprakas Mukerjee	... 1908	125
,, Akshaykumar Raychaudhuri	... 1912	125
,, *Sailendranath Pathak, <i>Record-keeper</i>	... 1913	125
,, Satischandra Banerjee*	... 1919	115
,, Shashthidas Ganguli, B.A.	... 1919	110
,, Amalchandra Ghosh, B.A.	... 1919	110
,, Manmathanath Singha	... 1915	105
,, Netra Panjan Datta	... 1917	105
,, Asutosh Bhattacharyya, B.A.	... 1921	100

## Grade—40-5-80-5-120.

Babu Panchanan Banerjee, B.A.	... 1919	110
,, Jibankrishna Chatterjee	... 1913	105
,, Anadichandra Ghosh	... 1913	100
,, Jogendranath Ghosh	... 1915	100
,, Chintaharan Acharyya	... 1917	100
,, Haridhan Chatterjee	... 1919	100
,, Anukulchandra Raychaudhuri	... 1919	95
,, Ramsaran Kundu	... 1917	95
,, Asitamohan Banerjee	... 1918	95
,, Nripendralal Banerjee	... 1918	95
,, Asutosh Ghosh	... 1923	95
,, Sasankasekhar Ghosh	... 1917	85
,, Upendranath Bhuiyan	... 1919	85
,, Kasiprasad Raychaudhuri	... 1919	85
,, Bankimchandra Ray	... 1920	85
,, Narendranath Chatterjee	... 1918	85
,, Sailendranath Sinha, B.A.	... 1928	80

Name.	Year of appointment.	Salary from 1-6-29.
		Rs.
„ Debendranath Chatterjee	... 1920	80
„ Manindranath Chakrabarti	... 1921	80
„ Pradyotkumar Halder, B.A.	... 1925	80
„ Murarimohan Mookerjee	... 1924	70
„ Birendranath Ghosh	... 1925	70
„ Debendranath Dasgupta	... 1923	70
„ Arunodaya Banerjee	... 1924	60
„ Sudhirkumar Maitra, B.Sc.	... 1927	60
„ Ajitkumar Sinha	... 1925	60

## Outside Grade.

Babu Haripada Chakrabarti, <i>Care-taker</i>	... 1914	80
„ Kshetradas Banerji	... 1924	50
„ Ramkumar Biswas	... 1917	35
„ Paresnath Bose	... 1924	40
„ Ramgati Palodhi	... 1927	30
„ Pannalal De	... 1921	25
„ Saktipada Bhattacharyya	... 1924	30
„ Debendranath De	... 1918	25

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## Grade—300-10-350.

Mr. Atulchandra Ghatak, M.A., <i>Supdt.</i>	... 1914	350
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## Grade—100-10-200-10-250.

Babu Kalipada Das, B.A.	... 1919	210
„ Ajarchandra Sarkar	... 1915	185

## Grade—60-5-100-5-150.

Babu Satyakinkar Banerjee, B.A.	... 1927	110
„ Sailendranath Mukherjee	... 1909	105
„ Jnanendranath Sen, B.A.	... 1919	95
„ Bhupendralal Banerjee,		
<i>Printer and Section-Holder</i>	... 1919	90
<i>Printer's allowance</i>	...	20
„ Abanikumar Mukerjee	... 1912	85
„ Dhirendrakumar Guha, B.A., <i>Store-Keeper</i>	1924	80
<i>Allowance</i>	...	25

## Grade—40-5-80-5-120.

Name.	Year of appointment.	Salary from 1-6-29.
		Rs.
Babu Ramkrishna Chakravarti, M.A.	... 1927	90
„ Jogendranath Banerjee	... 1916	85
„ Manindrachandra Bose	... 1921	80
„ Raicharan Das, B.A.	... 1925	80
„ Kaliprasanna Mookerjee	... 1922	70
„ Umapada Sadhu	... 1925	70
„ Kanakkrishna Chatterjee, B.A.	... 1926	65
„ Rajendranath Banerjee	... 1919	65
„ Saibadas Mookerjee	... 1924	65
„ Harischandra Datta	... 1925	55
„ Jogendranath Datta	...	45
„ Kalidas Banerjee, B.A.	... 1926	60
„ Amulyacharan Goswami, B.A.	... 1926	60

## Outside Grade

Babu Nagendranath Basu	... 1918	50
„ Binaykrishna Bhattacharyya	... 1923	45
„ Rameshchandra Banerjee	... 1923	40

*Lino-type Operators.*

Babu Manomohan Mookerjee	... 1926	110
„ Tarapada Banerjee	... 1927	90
„ Balaichand Biswas	... 1926	70

*Thompson Operator*

Babu Khagendranath Chakrabarti	... 1927	50
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Compositors are paid at piece-rates.

**Mess.**

## Grade—300-10-350.

Mr. Sudhanath Mukherjee, B.L., Inspector of Messes	... 1909	350
Conveyance allowance	...	50

## Grade—40-5-80-5-120.

Name.	Year of appointment.	Salary from 1-6-29. Rs.
Babu Sailajananda Mukherjee	... 1911	105
„ Sureschandra Dasgupta	... 1919.	100

**Controller's Department.**

## CONTROLLER.

## Grade—800-50-1,000.

Mr. Narendranath Sen, M.A., B.Sc.	... 1910	900
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## ASST. CONTROLLER.

## Grade—250-25-500.

Dr. Binodbihari Datta, M.A., B.L., Ph.D.	... 1928	275
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## ASSISTANTS.

## Grade—100-10-200-10-250.

Babu Jayantipada Chaudhuri	... 1910.	220
„ Krishnabihari Raychaudhuri, M.A., B.L.	... 1918.	185
„ Debiprasad Datta, M.A.	... 1919.	185
„ Durgacharan Mukherjee, B.A.	... 1919	165
„ Rajkumar Mukherjee, B.A.	... 1919	165
„ Siddheswar Ghosh	... 1903	160
„ Rameschandra Sen	... 1913	150
Extra allowance	...	25
„ Sudhinkrishna Chatterjee	... 1905	135

## Grade—60-5-100-5-150.

Babu Asutosh Pal	... 1907.	125
„ Basantakumar Banerjee, <i>Store-keeper</i>	... 1911	115
„ Kumudprasad Bose	... 1923	115
„ Himansusekhar Mookerjee, M.A.	... 1925	85

## Grade—40-5-80-5-120.

Babu Purnachandra Mallik	... 1919	105
„ Jagannathdeb Ray, B.A.	... 1918	90

Name.	Year of appointment.	Salary from 1-6-29. Rs.
„ Susilchandra Banerjee	... 1910	90
„ Pratapchandra Basu	... 1913	90
„ Bipinbihari Dasgupta	... 1918	90
„ Asutosh Bagchi	... 1915	90
„ Rebatimohan Ray	... 1915	85
„ Narendralal Sen	... 1918	85
„ Pankajkumar Aich	... 1918	85
„ Manomohan Banerjee	... 1919	85
„ Jitendranath De	... 1920	80
„ Khagendranath Basu	... 1928	55

### Post-Graduate Teaching in Arts.

Grade—500-50-750.

Dr. Gauranganath Banerjee, M.A., Ph.D., <i>Secretary</i>	... 1915	750
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Grade—100-10-200-10-250.

Babu Basantakumar Nag	... 1914	180
„ Brahmeswar Bhattacharyya, M.A., B.L.	... 1928	110
„ Harigopal Chatterjee, M.A.	... 1919	110

Grade—60-5-100-5-150.

Babu Bhupatinath Taraphdar	... 1917	105
„ Kalicharan Chatterjee	... 1917	105

Grade—40-5-80-5-120.

Babu Jitendranath Bhattacharyya, B.A.	... 1919	100
„ Pravaschandra Pal	... 1919	90
„ Rajendralal Maitra	... 1917	85
„ Kshitischandra Acharyya	... 1918	85
„ Kumudkanta Bhattacharyya, B.A.	... 1923	85
„ Radhikaranjan Chakrabarti	... 1923	85
„ Jatindranath Majumdar	... 1919	85
„ Pramathanath Ray	... 1921	85
„ Nisiranjan Dasgupta	... 1919	75
„ Byomkes Banerji	... 1926	55

Outside Grade.

Babu Debidas Bhattacharyya (Junior Assistant)	... 1921	25
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**Post-Graduate Teaching in Science.**

Grade—500-50-750.

Name.	Year of appointment.	Salary from 1-6-29.
Mr. Haranchandra Banerjee, M.A., B.L.,		
<i>Secretary</i>	... 1917	Rs. 700

**ASSISTANTS.**

Grade—100-10-200-10-250.

Babu Dhirendrakumar Mookerjee, B.A.	... 1917	140
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Grade—40-5-80-5-120.

Babu Kalikrishna Pathak, B.A.	... 1924	90
„ Pratapchandra Rakshit	... 1917	85
„ Kesabchandra Rakshit	... 1925	60

**Law College.**

Grade—100-10-200-10-250.

Babu Nisanath Basu, B.A.	... 1908	210
„ Hemchandra Ray, B.A.	... 1909	210
„ Satischandra Mukherjee	... 1910	210
„ Karunanidhan Banerjee	... 1916	200

Grade 60-5-100-5-150.

Babu Binayendranath Maitra	... 1912	125
„ Brajendranath Pal, B.L.	... 1917	105

Grade—40-5-80-5-120.

Babu Harendranath Banerjee	... 1913	85
„ Jitendranath Mukherjee	... 1912	85
„ Sribhushan Mitra	... 1919	85
„ Bijanbihari Chakrabarti	... 1919	85
„ Phanibhushan Mukerjee	... 1912	85
„ Krishnabihari Raychaudhuri	... 1914	85
„ Subodhchandra Mukherjee	... 1913	85
„ Kalidas Banerjee	... 1918	85

Name.	Year of appointment.	Salary from 1-6-29. Rs.
„ Sivnath Ray	... 1919	85
„ Pramanathanath Mukerjee	... 1917	60
„ Harendranath Ghosh	... 1925	55

Outside Grade.

Babu Rajendranath Guhathakurta	...	60
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**Inspector of Colleges.**

Grade—800-50-1,000.

Dr. H. C. Mookerjee, M.A., Ph.D., <i>Inspector</i>	... 1920	1,000
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Grade—100-10-200-10-250.

Babu Birendranath Mukherjee, B.A.	... 1907	250
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Grade—40-5-80-5-120.

Babu Churnilal Chatterjee	... 1927	70
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**Students' Welfare.**

Dr. A. Chatterji, M.B.B.S., <i>Hon. Secretary and Medical Adviser</i>	1920	200
Car Allowance	...	125

Grade—60-5-100-5-150.

Babu Kalidas Banerjee, M.A., <i>Head Assistant</i>	... 1921	100
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Grade—40-5-80-5-120.

Babu Phanindrakumar Chaudhuri	... 1921	80
„ Janakinath Mookerjee	... 1921	90
„ Bhabanath Bose	... 1922	80

Outside Grade.

Babu Sailendranath Chatterjee, B.A.	... 1928	50
„ Subalchandra Saha	... 1926	35
„ Makhanlal Sen	... 1920	40

## Calcutta Review.

Name.	Year of appointment.	Salary from 1-6-29.
Pramathanath Banerjee, Esq., M.A., B.L. <i>Hon. Secretary (on leave).</i>		Rs.
Satischandra Ghosh, Esq., <i>Hon. Secretary.</i>		
Babu Prabhaschandra Pal	1921	30
„ Kalicharan Chatterjee	1923	30
„ Mahimaranjan Banerjee (40-5-80-120)	1923	70
„ Rameschandra Das ( <i>Temporary Manager</i> )	1928	60

## University Students' Information Bureau.

Dr. S. N. Dasgupta, M.A., Ph.D., <i>Secretary</i>	...	100
Babu Paresnath Chatterjee (45-5-120)	1926	70

(Asutosh Building Fund).

Babu Asutosh Mookerjee, <i>Overseer</i>	1926	100
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## Science College.

## PHYSICS DEPARTMENT.

(Palit Fund).

Babu Sukumarchandra Sarkar (100-10-150)	1927	70
„ K. S. Maiman (50-5-75)	1923	70
„ S. Adhikari (50-5-75)	1926	65
„ Brajendranath Chakrabarti	1926	60

(Khaira Fund).

Babu Someschandra Chaudhuri	1923	25
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(General Fund).

Babu Anathnath Mookerjee (40-5-120)	1919	90
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## APPLIED PHYSICS DEPARTMENT.

(Ghose Fund).

Babu Nitailal Nāg	1923	25
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*(General Fund)*

Name.	Year of appointment.	Salary from 1-6-29.
Babu Satyendranath Samanta (50-5-75)	... 1926	Rs. 65
„ Satischandra Das	... 1925	45
„ Amulyachandra Sarkar	... 1928	50
„ Durgamohan Banerjee	... 1926	20

## CHEMISTRY DEPARTMENT.

*(Palit Fund)*

Babu Nadiabihari Adhikari (100-10-150)	... 1929	100
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*(General Fund)*

Babu Krishnadhan Goswami (60-5-150)	... 1915	125
„ Bijayratan Mitra (40-5-120)	... 1917	85
„ Nagendranath Majumdar	... 1916	40
„ Syamlal	... 1916	28

## APPLIED CHEMISTRY DEPARTMENT.

*(General Fund)*

Babu Nirodkumar Das	... 1923	90
Balaichandra Das	... 1925	60
Durgendranath Bagchi	... 1928	50
„ Fakirchandra Nath	... 1926	40
„ Kanailal Banerjee	... 1925	30
Shaikh Azimullah	... 1926	30

## BOTANY DEPARTMENT.

*(General Fund)*

Babu Jogendranath Banerjee (100-10-200)	... 1921	130
„ Praphullakumar Bose (60-5-150)	... 1920	125

## AGRICULTURE DEPARTMENT.

*(General Fund)*

Babu Harendrakumar Majumdar	... 1929	75
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## ZOOLOGY DEPARTMENT.

*(General Fund)*

Name.	Year of appointment.	Salary from 1-6-29.
Babu Haraprasad Ray (40-5-120)	1920	85
,, Amulyaratan Mitra	1924	50
Aftabuddin	1924	38
Matilal	1927	30

## EXPERIMENTAL PSYCHOLOGY DEPARTMENT.

*(General Fund)*

Babu Tarapada Bhattacharyya (40-5-120)	...	70
,, Manindranath Samanta	...	100
,, Sudhirkumar Bose	1925	75

## BIO-CHEMISTRY DEPARTMENT.

*(General Fund)*

Babu Parimalbikas Sen	1919	200.
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## WORKSHOPS DEPARTMENT.

*(General Fund)*

Babu Nagendranath Ghorai	1922	65
,, Manmathanath Das	1925	50
,, Saratchandra Ghose	1919	43
,, Amulyachandra Maiti	1927	40
,, Nakarnath Nath	1922	40
,, Maniklal Nath	1925	38

*(Ghose Fund)*

Babu Ramanimohan Pal, Instructor in Drawing	1925	160
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UNIVERSITY PROVIDENT FUND.

Depositor No. ....

FORM OF DECLARATION

From ..... subscriber.

I hereby declare that in the event of my death the amount at my credit in the University Provident Fund shall be distributed among the persons mentioned below in the manner shown against their names.

The amount due to a nominee who is a minor at the time of my death should be paid to the person whose name appears in column 5.

1	2	3	4	5	6
Name and address of the nominee or nominees.	Relationship with the subscriber.	Whether major or minor: if minor state his age.*	Amount of share of deposit.	Name and address of the person to whom payment is to be made on behalf of the minor.	Sex or parentage of person mentioned in Col. 5.

\* Here state married or unmarried.

Two witnesses' signatures (1) .....

(2) .....

Station .....

Date .....

Signature of subscriber .....

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