CONCLUSION OF THE THESIS

The present project is an humble attempt to offer a new set of uncoupled differential equations in oblique co-ordinates to study the non-linear behaviours of different rhombic plates (skew plates having aspect ratio 1), under'Static', 'Dynamic' and'Thermal' loadings. It is observed from the numerical results of the present study, [as shown in the different tables for different rhombic plates (viz. thin rhombic plates of uniform thickness, rhombic plates of variable thickness, rhombic sandwich plates and thick rhombic plates of uniform thickness)] , that, the non-linear behaviours of skew plates can be predicted with ease and accuracy by applying the present set of differential equations. Moreover results for Clamped and Simply-Supported plates with immovable as well as movable edge conditions can be obtained from the same set of differential equations. This is an additional advantage over Berger's equation used by different authors in analysing non-linear behaviours of elastic skew plates. Furthermore, unlike Von-Kármán's coupled differential equations in oblique co-ordinates, the proposed differential equations offer reasonably good results from the practical point of view, with minimum computational labour, because of its uncoupled form.

Thus considering the simplicity, versatility and practicability, it may be concluded that the proposed differential

equations presented in the thesis are quite efficient to fill up void in the non-linear theory of skew plates.