Nomenclature

x,y,z : Rectangular coordinates.

r,θ,z : Cylindrical polar coordinates.

ρ : Density of fluid.

p : pressure.

u,v,w : velocity component.

μ : Coefficient of viscocity.

ν : Kinemetic coeffecient.

ς,η : Elevation of free surface.

ξ : Time integral of the displacement.

τ_{zz} : Normal stress in components in cylindrical polar coordinate.

τ_{rz} : Tangential stress component in cylindrical polar coordinate.

p_{yy} : Normal pressure component in cartesian coordinate.

p_{xy} : Tangential pressure component in cartesian coordinate.

X,Y,Z : Component of body force per unit volume.

t : time

$\delta(t)$: Diracdelta function.

H(t) : Heavy side unit function.

F : Hypergeometric function

J_0 : Bessel function of first kind of order zero.

J_1 : Bessel function of first kind and first order.

J_n : Bessel function of first kind and order. n

Γ : gama function.

Ω : Angular velocity.

ω : Frequency.

χ : Acceleration potential.

ϕ : Velocity potential.

ψ : Current function.

Σ : Summation.