Equations:

Potential Equation : $\frac{\partial^2 \Phi}{\partial y^2} = m^2 \Phi$

Continuity Equation : $\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} = 0$

Momentum Equation : $\frac{\mu_{thnf}}{\mu_f}\left(\frac{\partial^2 u}{\partial y^2}\right) - \left(\frac{\sigma_{thnf}}{\sigma_f}\right) M^2 u + Gr\left(\frac{(\rho\gamma)_{thnf}}{(\rho\gamma)_f}\right)\theta + (m^2\alpha)\emptyset + \frac{\partial p}{\partial x} = 0 \quad , \quad \frac{\partial p}{\partial y} = 0$

Heat Equation : $\frac{\partial^2 \theta}{\partial y^2} + Q\left(\frac{k_f}{k_{thnf}}\right) = 0$

Boundary Conditions:

$$\Phi(x,y,t)\big|_{y=h} = 1 \qquad \Phi(x,y,t)\big|_{y=-h} = 1$$
$$u(x,y,t)\big|_{y=h} = 0 \qquad u(x,y,t)\big|_{y=-h} = 0$$
$$v(x,y,t)\big|_{y=0} = 0 \qquad v(x,y,t)\big|_{y=h} = \frac{\partial(h)}{\partial t}$$
$$\theta(x,y,t)\big|_{y=h} = 0 \qquad \theta(x,y,t)\big|_{y=-h} = 0$$

Geometry of The Problem:

$$h = 1 + \beta x - \varepsilon \cos \pi (x - t)$$

$t = 0.5$
$x = 1$
$M^2 = 0.5$
$\alpha = 0.1$
$\varepsilon = 0.1$
$m = 0.1$
$Q = 1$
$\frac{\partial p}{\partial x} = \frac{\partial^2 p}{\partial x^2} = 0.1$

$\phi_1(Fe_3O_4) = \phi_2(\text{SWCNTs}) = \phi_3(Au) = 0.05$
$Ec = 1$
$Rd = 1$
$Gr = 0.1$
$\beta = 1$