Internal Assessment

Full Marks- 10

Answer the followings:

1) Solve by method of variation of parameter $\frac{d^2y}{dy^2} + y = secax$

2) Find the particular integral of $(D^2 + 1)y = xe^{2x}$

3) Solve by method of undetermined coefficients $\frac{d^2y}{dx^2} - 3\frac{dy}{dx} + 2y = sin2x$

4) Solve the equation $(5 + 2x)^2 \frac{d^2y}{dx^2} - 6(5 + 2x) + 8y = 8(5 + 2x)^2$