NAME: S.No.   ID:

Maximum Marks: 15   Section:06   Time Allowed: 30 minutes

(1) The function $y_1 = x^2$ is one solution of $x^2 y'' - 3xy' + 4y = 0$. Find second solution of the differential equation.

(2) Solve the differential equation $y'' + 4y = cos^2 x$ by undetermined coefficient.

(3) Solve the differential equation $x^2 y'' - xy' + y = 2x$ by variation of parameters.