BHARATI VIDYAPEETH COLLEGE OF ENGG.

TERM TEST I(2014-2015) SEM-II

Sub-Applied Maths II **Marks :20**

SET-B

Note:1)Question no.1 is compulsory.

:2)Solve either question no. 2 or 3 completely.

Q1)a) Solve $(D^3 - D^2 + D - 1)^2 y = 0.$ (5)

b)Soive $(x^2 + y^2 + 1)dx - 2xydy = 0.$ (5)

Q2) a)Solve $\frac{dr}{d\theta} = r\tan\theta - \frac{r^2}{\cos\theta}.$ (5)

b)Using Euler's method find y at x=2,if $\frac{dy}{dx} = x + 2y, y(1) = 1, h = 0.2.$ (5)

Q3)a)Solve $(D^2 - 4D + 4)y = e^{2x} + x^3.$ (5)

b)Using Taylor's series method find y at x=0.1,if y(0)=1, $\frac{dy}{dx} = -xy.$ (5)