

Test 1
Time - 1 hr.

MARKS - 30

Solve

1) $\frac{d^3y}{dx^3} + 3\frac{d^2y}{dx^2} - 6\frac{dy}{dx} + 2y = \sin 5x$

(7.5)

2) Find C.F and P.I

$$x^2 \frac{d^2y}{dx^2} - x \frac{dy}{dx} + y = \log x$$

(7.5)

Solve

3) $(x - y^2) dx + (2xy) dy = 0$

(7.5)

4) $z = xy + y\sqrt{x^2 - a^2} + b$

(7.5)

Solve by elimination method of partial
Differentiation