Assignment-2 Differential Equations (MTH401) Lecture Covered 13-22 Maximum Marks 20 Due Date: Wednesday, July 08, 2015

## Question-01

Solve the differential equation:  $\frac{d^4y}{dx^4} + ay = 0$ , when: i) a > 0ii) a < 0.

## Question-02

Solve the differential equation:  $x^2 \frac{d^2y}{dx^2} - 3x \frac{dy}{dx} + 5y = x^2 \sin(\ln x)$