

# My today paper 25/07/2013

40 Mcqs each of one mark from past paper

4 question each of two marks

4 question each of three marks

4 question each of five marks

Define the line integral  $\int_{-\pi}^{\pi} \sin nx dx$

Where n is an integer other than zero 2 Marks

Question # 1) Define the line integral  $\int_{-\pi}^{\pi} \cos^2 nx dx$

Where n is an integer other than zero 2 Marks

Question # 2) Find the Laplace transform of the form F (t) that  $F(t) = e^{2t} \cos 4t$

Question # 3) Find the Laplace transform of the form F (t) that  $F(t) = t^3 e^{-3t}$

Question # 4) Find out the Divergence  $\int \text{div} F$  of a vector function

$F = (3x + y)\hat{i} + xy^2z\hat{j} + xz^2\hat{k}$  5 Marks

Question # 5) Find the exact change of the equation  $y = 2x^2 - 4x + 5$  when x change from 2 to 2.2

Question # 6) Find out the curl  $\int \text{curl} F$  of a vector function

$F = (3x + y)\hat{i} + xy^2z\hat{j} + xz^2\hat{k}$  5 Marks

Question # 7) Evaluate the integral  $\int_{(0,0)}^{(3,2)} (2xe^y)dx + (x^2e^y)dy$  5 Marks

Question # 8) Convert Rectangular co-ordinates  $(x, y, z)$  to Spherical co-ordinates  $(\rho, \theta, \phi)$

$\left(\sqrt{3}, \frac{\pi}{3}, \frac{\pi}{2}\right)$  5 Marks