



<b>A)</b>	Form the partial differential equation by eliminating the arbitrary function from: $f(x + y + z, x^2 + y^2 + z^2)$	CO4	6
<b>B)</b>	Solve the partial differential equation: $(mz - ny)p + (nx - lz)q = ly - mx$ .	CO4	6
<b>C)</b>	If the initial displacement and velocity of a string stretched between $x = 0$ & $x = l$ are given by $y = f(x)$ & $\frac{dy}{dt} = g(x)$ , determine the displacement $y$ of any point at a distance $x$ from one end at time $t$ .	CO4	6
<b>Q. 5</b>	<b>Solve Any Two of the following.</b>		
<b>A)</b>	If $f(z) = u + iv$ is an analytic function and $u - v = e^x(\cos y - \sin y)$ , find $f(z)$ in terms of $z$ .	CO5	6
<b>B)</b>	Find the bilinear transformation that maps the points $z=0, -1, i$ into the points $w=i, 0, \infty$ respectively.	CO5	6
<b>C)</b>	Use Cauchy's Integral formula to evaluate $\oint_C \frac{e^{2z}}{(z+1)^4} dz$ , Where $C$ is the circle $ z  = 2$	CO5	6
	<b>*** End ***</b>		

**The grid and the borders of the table will be hidden before final printing.**