



SNS College of Technology, Coimbatore – 641035
(An Autonomous Institution)

(Common to all II Year B.E./B. Tech.)



UNIT-I
PARTIAL DIFFERENTIAL EQUATIONS
PART-B

(TWO MARKS)

1. Find the PDE of all planes having equal intercepts on the x and y axis.
2. Form the PDE by eliminating a and b from $z = (x^2 + a^2)(y^2 + b^2)$
3. Find the solution of $px^2 + qy^2 = z^2$
4. Find the singular integral of the partial differential equation $z = px + qy + p^2 - q^2$
— —
5. Write the complete solution of $p+q=x+y$
6. Find the partial integral of $(D^2 - 2DD' + D'^2)z = e^{x-y}$
7. Solve $(D^3 - 3DD'^2 + 2D'^3)z = 0$
8. Find the Complete integral of the partial differential equation $z = px + qy + p^2 + q^2$
9. Eliminate the arbitrary function f from $z = f\left(\frac{x}{y}\right)$ and from PDE
10. Find the PDE by eliminating the arbitrary constants in $z = a(x + y) + b$
11. Find the complete solution of $pq=xy$

12. Write Particular integral of $\frac{\partial^2 z}{\partial x^2} - \frac{5\partial^2 z}{\partial x \partial y} + \frac{6\partial^2 z}{\partial y^2} = e^{x+y}$

13. Find the singular Integral of $z = px + qy + p^2$

14. Write Particular integral of $(D^2 + 2DD' + D'^2)z = e^{(x-y)}$

-- --
-- --
--