



**SRM INSTITUTE OF SCIENCE AND TECHNOLOGY  
RAMAPURAM CAMPUS**

**DEPARTMENT OF MATHEMATICS**

**18MAB201T-Transforms and Boundary Value Problems**

**Unit 1 – Partial Differential Equations**

**Assignment 1**

**Year/Sem : II/III**

**Branch: Common to All branches except B.Tech (Business Systems)**

**Total marks: 20Marks**

**PART B (2x4=8 marks)**

1. Form the PDE by eliminating the arbitrary function  $f$  from  
 $f(lx + my + nz, x^2 + y^2 + z^2) = 0$
2. Solve  $x(y - z)p + y(z - x)q = z(x - y)$

**PART C (1x12=12marks)**

3. Solve  $(D^3 - 7DD'^2 - 6D'^3)z = e^{x+y} + \sin(x - 2y) + x^2y$