**Week 4th Question Bank**

**Course B.Sc(Math+Physics+Chem) Hons. 2nd sem**

**Sub Partial Differential Equation**

**Code MATH 241**

**Faculty Dr. Richa Gaur**

Q1-Solve әu/ әx = 2әu/ әy given that,

 U(0,y)=8e-6x by solving the method of separation of variables.

Q2-Solve ә2u/ әx2 - 2әu/ әx + әu/ әy=0 by the method of separation of variables.

Q3- Use the method of separation of variables to solve PDE

 ә2u/ әx2 +4 ә2u/ әy2 =0

Q4-A tightly stretched string with fixed end points x=0 and x=L.In the shape defined by y=kx(l-x),

Where “k” is constant is released from this position of rest. Find y(x,t), the vertical displacement is given by ә2u/ әt2 =c2 ә2u/ әx2