**Week 5th Question Bank**

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

**Sub Partial Differential Equation**

**Code MATH 241**

**Faculty Dr. Richa Gaur**

Q1-What are the three types of the applications of partial differential equation.

Q2 At what temperature we fix the ends of any object in one dimensional heat flow.

Q3 What happened when the heat penetrates deeper in the object after removing the source of heat.

Q4 What will be the values of k after arising the three cases of one dimensional heat flow.

**Short Answer**

Q5 Why we use the solution of third case for solving string or wave equations.Explain in your words.

Long  **Answer**

**Q6** Solve the equation

әu/ әt= a2ә2u/ әx2 where u(x,t) satisfies the following equations

(1) u(x,t)=0

(2) u(L,t)=0 for all t

(3) u(x,0)=x2 in 0<x<L