**Home Assignment ( Set – 01 )**

Partial Differential Equations

Paper Code : MTHM – 603

B.Sc. 6th Semester (Major)

1. Form partial differential equations by eliminating arbitrary constants ‘a’

and ‘b’ from the following relations :

(i)

(ii)

(iii)

2. Derive the partial differential equation by the elimination of arbitrary

function from the equation , where and are functions of ,

and .

3. Form partial differential equations by eliminating arbitrary function from

the following relations :

(i)

(ii)

(iii)

4. Define Langrage’s equation. Derive Langrage’s method of solving

, when and are functions of .

5. Solve the following Partial Differential Equations :

(i)

(ii)

(iii)

(iv)

6. Show that the following system of Partial Differential Equations are

compatible and solve them :

(i) ,

(ii) ,

7. Find a complete, singular and general integrals of .

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