B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

II Year III Semester

Core Major - Paper V - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS

Time : 3 Hours Max. Marks : 75

SECTION A – (10 × 2 = 20 marks)

Answer any *TEN* questions

1. Solve .
2. Solve .
3. Write the auxiliary equation of .
4. Write the general solution of .
5. Eliminate the arbitrary function .
6. Solve .
7. Write the Laplace transform of .
8. What is .
9. What is .
10. Write .
11. Write .
12. Find .

SECTION B – (5 × 5 = 25 marks)

Answer any *FIVE* questions

1. Solve .
2. Solve
3. Solve .
4. Find
5. Using Laplace transform solve given that
6. Solve .
7. Find .

SECTION C – (3 × 10 = 30 marks)

Answer any *THREE* questions

1. Solve .
2. Solve
3. Find the general solution of .
4. Find .
5. Solve the equation given that when

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_