LESSON PLAN of SEMESTER 2

Session 2023:(Jan-June)

SEMESTER 2

CORE COURSE – 2 NAME OF THE COURSE - DIFFERENTIAL EQUATIONS

 Topic Number of Classes

1. 1st order exact differential equations 4

2. Integrating factors ,rules to find an

 Integrating factor 5

3. 1st order higher degree equations

 Solvable for x,y,p 5

4. Methods for solving higher order

 differential equations 4

5. Basic theory of linear differential equations,

 Wronskian,and its properties 5

6. Solving a differential equation by

 reducing its order 5

7. Linear homogenous equations with

 constant coefficients 4

8. Linear non-homogenous equations,

 the method of variation of parameters 6

10. The Cauchy-Euler equation 5

11. Simultaneous differential equations 5

12. Total differential equations 5

13. Order and degree of

 partial differential equations 3

14. Concept of linear and non-linear

 partial differential equations 3

15. Formation of 1st order

 partial differential equations 4

17. Linear partial differential equation of 1st order 3

18. Lagrange’s method 6

19.Classification of 2nd order partial differential

 equations into elliptic,parabolic and hyperbolic

 through illustrations only 3

20. Tutorial 9

21. Class Test 4

22. Mock Test 2

**TOTAL CREDIT- 90**