Odd Semester Lesson Plan

Subject : Mathematics

Teacher name: Pinki, Paper 2 Semester 3rd

 October 2020

|  |
| --- |
| Partial differential equations: Formation, order and degree, Linear and Non-Linear Partial differential equations of the first order: Complete solution, singular solution, General solution, Solution of Lagrange’s linear equations, Charpit’s general method of solution. Compatible systems of first order equations, Jacobi’s method. |

November 2020

|  |
| --- |
| Linear partial differential equations of second and higher orders, Linear and non-linear homogenious and non-homogenious equations with constant co-efficients, Partial differential eqution with variable co-efficients reducible to equations with constant coefficients, their complimentary functions and particular Integrals, Equations reducibleto linear equations with constant co-efficients. |

December 2020

|  |
| --- |
| Classification of linear partial differential equations of second order, Hyperbolic, parabolic and elliptic types, Reduction of second order linear partial differential equations to Canonical (Normal) forms and their solutions, Solution of linear hyperbolic equations, Monge’s method for partial differential equations of second order. |

January 2021

|  |
| --- |
| Cauchy’ s problem for second order partial differential equations, Characteristic equations and characteristic curves of second order partial differential equation, |

February 2021

|  |
| --- |
| Method of separation of variables: Solution of Laplace’s equation, Wave equation (one and two dimensions), Diffusion (Heat) equation (one and two dimension) in Cartesian Co- ordinate system. |