**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Even Semester**

**Session (2018-19)**

**Class: B.Sc. III-B Name of the Teacher: Preeti Kapoor**

**Subject: Mathematics Period : 2nd (1-4)**

**Paper : III Room No : 128**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | Solution of equations-Bisection method, Regula Falsi method. |
| Week 2 | 21/01/2019 –  25/01/2019 | Secant method, Newton-Raphson’s method. |
| Week 3 | 28/01/2019 –  2/02/2019 | Iterative method, Birge-Vieta method. |
| Week 4 | 4/02/2019 –  9/02/2019 | Interpolation-finite differences, operators and their relations, Detection of error. |
| Week 5 | 11/02/2019 –  16/02/2019 | Differences of a polynomial, Finite difference interpolation- Newton’s forward and backward. |
| Week 6 | 18/02/2019 –  23/02/2019 | Central difference interpolation-Gauss’s forward and backward, Stirling’s and Bessel’s. |
| Week 7 | 25/02/2019 –  02/03/2019 | Lagrange’s interpolation, Hermite and Newton’s divided difference interpolation. |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Numerical differentiation-Newton’s forward and backward. |
| Week 9 | 18 /03/2019 –  22/03/2019 | Numerical differentiation-Stirling’s, Bessel’s and Newton’s divided difference methods. |
| Week 10 | 25/03/2019 –  30/03/2019 | Numerical Quadrature-Trapezoidal, Simpson’s, Boole’s, Weddle’s. |
| Week 11 | 1/04/2019 –  6/04/2019 | Numerical Quadrature-Gaussian and Chebyshev methods. System of linear equations-Direct methods. |
| Week 12 | 8/04/2019 –  12/04/2019 | System of linear equations- Iterative methods. |
| Week 13 | 15/04/2019 –  20/04/2019 | Algebraic Eigen value problems. |
| Week 14 | 22/04/2019 –  27/04/2019 | Numerical solution of ODE- methods of successive approximations. |
| Week 15 | 29 /04/2019 –  3/05/2019 | Numerical solution of ODE- multistep methods. |