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

**Teaching Plan Even Semester**

**Session (2018-19)**

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

**Subject: Mathematics Period : 5th(1-6)**

**Paper : I&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, Secant method, Newton-Raphson’s method. |
| Week 2 | 21/01/2019 –  25/01/2019 | Iterative method, Birge-Vieta method. |
| Week 3 | 28/01/2019 –  2/02/2019 | Double integrals and their applications. |
| Week 4 | 4/02/2019 –  9/02/2019 | Interpolation-finite differences, operators and their relations, Detection of error, differences of a polynomial |
| Week 5 | 11/02/2019 –  16/02/2019 | Finite difference interpolation- Newton’s forward and backward. Central difference interpolation-Gauss’s forward and backward, Stirling’s and Bessel’s. |
| Week 6 | 18/02/2019 –  23/02/2019 | Triple integrals and their applications. |
| 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, Stirling’s, Bessel’s and Newton’s divided difference methods. |
| Week 9 | 18 /03/2019 –  22/03/2019 | Vector analysis-Green’s theorem. |
| Week 10 | 25/03/2019 –  30/03/2019 | Numerical Quadrature-Trapezoidal, Simpson’s, Boole’s, Weddle’s, Gaussian and Chebyshev methods. |
| Week 11 | 1/04/2019 –  6/04/2019 | System of linear equations-Direct methods and iterative methods. |
| Week 12 | 8/04/2019 –  12/04/2019 | Vector analysis-Gauss’ divergence theorem. |
| 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 and multistep methods. |
| Week 15 | 29 /04/2019 –  3/05/2019 | Vector analysis- stokes’ theorem. |