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

**Teaching Plan Even Semester**

**Session (2018-19)**

**Class: B.Sc.Ist Name of the Teacher: JYOTI**

**Subject:Electricity & Magnetism Period : IIIrd**

**Paper : C Room No : 315**

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| **S. No** | **Dates** | **Topics to be covered** |
| Week 1 | 14 /01/2019 – 19/01/2019 | Current and current density, Equation of continuity, Microscopic form of Ohm’s law |
| Week 2 | 21/01/2019 –  25/01/2019 | Conductivity,Failure of ohm’s law, Invariance of charge, E in different frames of reference. |
| Week 3 | 28/01/2019 –  2/02/2019 | Field of a point charge moving with constant velocity,force between parallel currents,  Behaviour of various substances in magnetic field.  . |
| Week 4 | 4/02/2019 –  9/02/2019 | Definition of M and H and their relation to free and bound currents. |
| Week 5 | 11/02/2019 –  16/02/2019 | Permeability and susceptibility and their interrelationship. |
| Week 6 | 18/02/2019 –  23/02/2019 | B-H curve and energy loss in hysterisis. |
| Week 7 | 25/02/2019 –  02/03/2019 | Langevin theory of diamagnetism,Lorentz’s force, Definition of B, Biot savart’s law. |
| Mid Semester Exam | | |
| Week 8 | 11/03/2019 –  16/03/2019 | Application of Biot Savart’s law to long straight wire,circular current loop and solenoid. |
| Week 9 | 18 /03/2019 –  22/03/2019 | Ampere’s circuital law and its application. |
| Week 10 | 25/03/2019 –  30/03/2019 | Divergence & curl of B |
| Week 11 | 1/04/2019 –  6/04/2019 | Hall effect, expression & coefficient |
| Week 12 | 8/04/2019 –  12/04/2019 | Vector potential, Definition and derivation |
| Week 13 | 15/04/2019 –  20/04/2019 | Current density-definition,its use in calculation of change in magnetic field at a current sheet |
| Week 14 | 22/04/2019 –  27/04/2019 | Energy stored in magnetic field,  Faraday’s law of EM induction, Displacement current |
| Week 15 | 29 /04/2019 –  3/05/2019 | Mutual inductance  Reciprocity theorem ,Self inductance for solenoid. |