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

**Teaching Plan Session Odd Semester**

**(2018-19)**

**Class: B.Sc.III/I Name of the Teacher:Suresh Kumar**

**Subject: Physics Period :1st/3rd**

**Paper : IInd/Ist Room No : 129**

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| **S. No** | **Date From** | | **Date Upto** | **Topics to be covered** |
| Week 1 | **(For ongoing classes)** | | | Concept of current and voltage sources, Thevenin’s theorem/Cartesian and spherical polar coordinate systems, two and three-dimensional coordinate systems |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | Norton’s theorem, sources conversion/area, volume, displacement ,velocity |
| Week 3 | August 6, 2018 | August 11, 2018 | | CRO, Block diagram, construction and principle of working/ acceleration in these systems |
| Week 4 | August 13, 2018 | August 18, 2018 | | Use of CRO for frequency, time period, special features of dual trace phase measurements/solid angle, centre of mass, linear and angular momentum |
| Week 5 | August 20, 2018 | August 25, 2018 | | Energy band diagrams in semiconductors, direct and indirect semiconductors/torque, potential and kinetic energy of a system of particles |
| Week 6 | August 27, 2018 | September 1, 2018 | | Formula to calculate position of Fermi level in p and n semiconductors, Barrier formation/ relationship of conservation laws of linear momentum |
| Week 7 | September 3, 2018 | September 8, 2018 | | Energy band diagram of p-n junction, formula for depletion width, qualitative ideas of current flow mechanism in forward and reverse biased diode/angular momentum and energy |
| Week 8 | September 10, 2018 | September 15, 2018 | | VI characteristics , static and dynamic resistance, depletion and diffusion capacitance, Zener diode, LED, photodiode and solar cell/ symmetries of space and time |
| Week 9 | September 17, 2018 | September 22, 2018 | | Diode circuit, clipping circuits, rectification: half wave, full wave and bridge rectifiers/various forces in nature |
| Week 10 | September 24, 2018 | September 29, 2018 | | Filter circuits(C, LC and π-filters), rectification efficiency and ripple factor in LC filter, voltage regulation circuit using Zener diode/ relative strengths and spatial dependence |
| Week 11 | October 1, 2018 | October 8, 2018 | | Voltage multiplier circuit, BJT: Structure and working, different current in transistor, switching action/ motion under force obeying inverse square law |
| **MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018)** | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Characteristics of CB, CE and CC configuration, active, cut off and saturation region/ equivalent one body problem |
| Week 13 | October 29, 2018 | November 3, 2018 | | Load line analysis of transistors, Q-point, transistor biasing and stabilization of operating point, fixed bias/ motion under central forces, equation of motion under central force |
| Week 14 | November 5, 2018 | November 10, 2018 | | Collector to base bias, bias circuit with emitter resistor, voltage divider biasing circuit/ equation of orbit and turning points, Kepler’s Laws |
| Week 15 | November 12, 2018 | November 17, 2018 | | Working and analysis of CE amplifier using h-parameters, current, voltage and power gain, input and output impedance/ elastic collision in Lab. and C.M. systems, relationships of velocities, angles |
| Week 16 | November 19, 2018 | November 22, 2018 | | Class A,B amplifiers/kinetic energies in these two systems, cross section of elastic scattering |
| Week 17 | November 26, 2018 | December 1, 2018 | | ClassC amplifier/ Rutherford scattering. |