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

**Teaching Plan Session Odd Semester**

**(2018-19)**

**Class: Bsc-1/ BSc physics Hons. Name of the Teacher:Bindu rani**

**Subject: waves and vibration/electronics. Period :3/6 or 7**

**Paper :B/ B Room No :129/319**

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| **S. No** | **Date From** | | **Date Upto** | **Topics to be covered** |
| Week 1 | **(For ongoing classes)** | | |  |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | |  |
| Week 3 | August 6, 2018 | August 11, 2018 | | **SHM, definition,SHM as projection of circular motion, characteristics of SHM** |
| Week 4 | August 13, 2018 | August 18, 2018 | | **Graphical representation, differential equation of SHM, energy of SHM/voltage source, current source, capacitor, inductor, linear circuit, KCL,KVL, mesh and node analysis** |
| Week 5 | August 20, 2018 | August 25, 2018 | | **Differential equation of angular SHM , compound pendulum, Torsional pendulum, transverse vibration on string/Level shifting, thevenin and nortan equivalent circuit, power and energy relationship in case of R,C,L** |
| Week 6 | August 27, 2018 | September 1, 2018 | | **Electrical osc, energy of electrical osc, composition of two perp SHM in ration 1:1 and 1:2 /maximum power transfer theorem, series and parallel connection of mutually coupled coil, equivalent circuit of transformer.** |
| Week 7 | September 3, 2018 | September 8, 2018 | | **Damped Mec osc and its equation , log dec, Relex time, Q factor/Electrical transducer , Resistive transducer- Resistive position transducer , strain guage , Resistance thermometer.** |
| Week 8 | September 10, 2018 | September 15, 2018 | | ***Electrical damped osc,Dead beat galv/ platinum thermometer, thermistor, Inductive transducer- differential output transducer, LVDT.*** |
| Week 9 | September 17, 2018 | September 22, 2018 | | ***Forced osc and its equation, behaviour of disp with frequency, vel and accel with frequency/pressure Inductive transducer , capacitive transducer, , piezoelectric load cell , thermocouple transducer.*** |
| Week 10 | September 24, 2018 | September 29, 2018 | | **Electrical osc and its behaviour/Binary , Hexadecimal and Octal number system, Interconversion.** |
| Week 11 | October 1, 2018 | October 8, 2018 | | **Power and Band width/Binary arithmetic ,2's complement arithmetic,Binary fractions and negative Binary number.** |
| **MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018)** | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | **Q factor and Band width and amplification factor/Floating point representation,codes, Error detecting and correcting codes , digital signal.** |
| Week 13 | October 29, 2018 | November 3, 2018 | | **Coupled osc , Normal coord, in phase out phase/positive and negitive logics, Basic digital circuit, basic gates, NOT, OR,AND, Universal gate NOR,NAND, EXCLUSIVE OR gate.** |
| Week 14 | November 5, 2018 | November 10, 2018 | | **Solution of differential equation of normal mode/Boolean laws and De- Morgan' s theorem, sum of product method , product of sum method.** |
| Week 15 | November 12, 2018 | November 17, 2018 | | **Degree of freedom , significance of normal mode/Karnaugh map, flip- flop, RS,JK , D, clocked.Race arround condition in JK flip flop, master salve JK.** |
| Week 16 | November 19, 2018 | November 22, 2018 | | **Inductive coupling of Electrical osc/Shift register , serial in serial out, serial in parallel out, parallel inparallel out.** |
| Week 17 | November 26, 2018 | December 1, 2018 | | **Revision , numerical problem/ Revision and numerical problem.** |