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

**Teaching Plan Session Even Semester**

**(2017-18)**

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

**Subject: Physics Period :3rd**

**Paper : I/II Room No : 129**

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| **S. No** | **Date From** | **Date Upto** | | **Topics to be covered** |
| Week 1 | Jan 08, 2018 | Jan 13, 2018 | | Lattice vibrations and phonons/Structure and working of JFET, characteristics, and transconductance curve |
| Week 2 | Jan 15, 2018 | Jan 20, 2018 | | Lattice vibrations and phonons/ FET amplifier and its voltage gain, structure and working of MOSFET |
| Week 3 | Jan 22, 2018 | Jan 27, 2018 | | Scattering of photons by phonons/Feed back in amplifier, voltage gain of negative feedback amplifier |
| Week 4 | Jan 29, 2018 | Feb 3, 2018 | | Scattering of photons by phonons/Advantages of negative voltage feedback, negative feedback current circuit, emitter follower |
| Week 5 | Feb 5, 2018 | Feb 10, 2018 | | Dynamics of a linear chain of similar atoms and chain of two types of atoms/Theory of sinusoidal oscillations, loop gain and phase, lead-lag RC circuit |
| Week 6 | Feb 12, 2018 | Feb 17, 2018 | | Dynamics of a linear chain of similar atoms and chain of two types of atoms/Wien bridge oscillator, Barkhausen criterion of sustained oscillations |
| Week 7 | Feb 19, 2018 | Feb 24, 2018 | | Optical and acoustic modes, Density of modes/Positive feedback amplifier LC and Colpitts oscillators |
| Week 8 | Feb 26, 2018 | Mar 03 , 2018 | | Optical and acoustic modes, Density of modes/Hartley oscillator |
| **2nd week March (Mid Semester Exam)** | | | | |  |  | **First Week March (Mid Semester Exam)** |
| Week 9 | March 15, 2018 | | March 17, 2018 | Einstein and Debye theories of specific heats of solids/OPAMP: characteristics of ideal and practical OPAMP 741, open-loop and close-loop gain, characteristics and application-inverting and non-inverting amplifier, adder, subtractor |
| Week 10 | March 19 , 2018 | | March 24, 2018 | Einstein and Debye theories of specific heats of solids/Differentiator and integrator, comparator, timerIC555, pin diagram and its application as astable and monostable multivibrator |
| Week 11 | March 26, 2018 | | March 31, 2018 | Magnetic classification of materials(dia, para, ferro, ferri, antiferro)/Analog and digital circuits, binary numbers, decimal to binary conversions, AND, OR, NOT gate, NAND , NOR gates as universal gates, XOR and XNOR gates |
| Week 12 | April 02, 2018 | | April 07, 2018 | Magnetic classification of materials(dia, para, ferro, ferri, antiferro)/De Morgan’s theorem, simplification of logic circuits using Boolean algebra, Minterms and Maxterms, conversion of a truth table into an equivalent logic circuit by sum of products method. |
| Week 13 | April 09, 2018 | | April 14 , 2018 | Langevin theory of dia and paramagnetism/Analog and digital communication systems, Amplitude and Frequency modulation, power in AM wave |
| Week 14 | April 16, 2018 | | April 21, 2018 | Langevin theory of dia and paramagnetism/ Generation and detection |
| Week 15 | April 23, 2018 | | April 28, 2018 | Quantum theory, Weiss’s theory of ferromagnetism, temperature dependence/Brief account of Satellite communication |
| Week 16 | April 30, 2018 | | May 05, 2018 | Quantum theory, Weiss’s theory of ferromagnetism, temperature dependence/Sky-wave communication, Hysteresis of ferromagnetic materials/ Mobile communication |