(Lesson Plan)

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd/Even Semester)
Session – (2020-2021)

Name of the Teacher: Dr. Gurjit Kaur
Department: Department of Physics

Class: B.Sc. III (NM and Voc)
Subject: Electronics and Solid State Devices-1 & 2
Section (s) A, B, Voc

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	**To**		
Odd semester				
1.	11th Sept. 2021	30th Sept. 2021	Concepts of current and voltage sources, Thevenin's theorem, Norton's theorem, Source conversion, CRO, Block diagram, construction and principle of working, Use of CRO for frequency, time period, special features of dual trace, phase measurements.	(i) Lecture method (ii) Group discussion (iii) Notes (iv) Numerical Problems (v) online material
2.	1st Oct. 2021	31st Oct. 2021	Energy band diagrams in semiconductors, Direct and indirect semiconductors, Formula to calculate Position of Fermi level in p and n semiconductors, Barrier formation, energy band diagram of p-n junction, Formula for Depletion width, Qualitative ides of current flow mechanism in forward and reverse biased diode, V-I characteristics, static and dynamic resistance, Depletion and diffusion capacitance, zener diode, LED, photodiode and solar cell.	(i) Lecture method (ii) PPt (iii) Group discussion (iv) Notes (v) Numerical Problems (vi) online material
3.	1st Nov. 2021	30th Nov. 2021	Diode circuits, Clipping circuits, Rectification: half wave, full wave and bridge rectifiers, filter circuits (C, LC and π filters), rectification efficiency and ripple factor in LC filter, voltage regulation circuit using zener diode, voltage	(i) Lecture method (ii) PPt (iii) Group discussion (iv) Notes (v) Numerical Problems

			multiplier circuits, Bipolar Junction transistors : Structure and working, different currents in transistor, switching action. Characteristics of CB, CE and CC configurations, Active, cutoff and saturation regions, Load line analysis of transistors, Q-point, Transistor biasing and stabilization of operating point, fixed bias, collector to base bias, bias circuit with emitter resistor, voltage divider biasing circuit. Working ans analysis of CE amplifier using h-parameters, current, voltage and power gain, input and output impedance. Class A, B and C amplifiers.	
Even Semester				
1.	3rd Feb. 2022	28th Feb. 2022	Diode circuits, Clipping circuits, Rectification: half wave, full wave and bridge rectifiers, filter circuits (C, LC and p filters), rectification efficiency and ripple factor in LC filter, voltage regulation circuit using zener diode, voltage multiplier circuits.	(i) Lecture method (ii) PPt (iii) Group discussion (iv) Notes (v) Numerical Problems
2.	1st March,2022	31st March,2022	Bipolar Junction transistors : Structure and working, different currents in transistor, switching action. Characteristics of CB, CE and CC configurations, Active, cutoff and saturation regions.	(i) Lecture method (ii) PPt (iii) Group discussion (iv) Notes (v) Numerical Problems (vi) online material
3.	1st April,2022	30st April,2022	Load line analysis of transistors, Q-point, Transistor biasing and stabilization of operating point, fixed bias, collector to base bias, bias circuit with emitter resistor, voltage divider biasing circuit.	(i) Lecture method (ii) Group discussion (iii) Notes (iv) Numerical Problems
4.	1st May,2022	25st May,2022	Working ans analysis of CE amplifier using h-parameters, current, voltage and power gain, input and output impedance. Class A, B and C amplifiers.	(i) Lecture method (ii) Group discussion (iii) Notes (iv) Numerical Problems (v) online material