

**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY,  
PANIPAT  
DEPARTMENT OF MECHANICAL ENGINEERING**

**LESSON PLAN**

**Name: -Mr. PankajBatra**  
**Branch/Semester: -3rd Sem.**

**Subject Name: - Basic Electronics**  
**Subject Code:-ES-203N**

<b>Lecture No</b>	<b>Unit No</b>	<b>Topic</b>	<b>Planned Date</b>
L1	1	<b>Unit-1:</b> Introduction to the subject: Basic Electronics	09/09/2021
L2	1	Introduction to Semiconductor Material, Fermi level, Forbidden Gap Energy	10/09/2021
L3	1	Concept of P type and N Type Material	13/09/2021
L4	1	Working of PN Junction Diode, Concept of Depletion width, Diffusion and Drift Current	16/09/2021
L5	1	V-I Characteristics of PN Diode: Under forward Biased and Reverse Biased Condition.	17/09/2021
L6	1	Zener Diode and its Characteristics	20/09/2021
L7	1	Design of Zener Diode as Voltage Regulator	23/09/2021
L8	1	Rectifiers: Half Wave Rectifier and its Analysis	27/09/2021
L9	1	Full Wave Centre Tap Rectifier and Its Analysis	30/09/2021
L10	1	Full Wave Bridge Rectifier and Its Analysis	30/09/2021
L11	1	Basic Working OF Transistor. Active Mode, Saturation, Cut-of f Mode of Operation.	01/10/2021
L12	1	Configuration of Transistor, Concept of Base Width Modulation/ Early Effect.	04/10/2021
L13	1	Input and Output Characteristics of CB Transistor.	07/10/2021
L14	1	Input and Output Characteristics of CE Transistor.	07/10/2021
L15	1	Class Test	
L16	1	BJT as Common Emitter Amplifier	08/10/2021
L17	1	Frequency Response and Bandwidth of CE Amplifier	08/10/2021

L18	2	Unit 2: Introduction to Operational Amplifier	11/10/2021
L19	2	Inverting, Non-Inverting and Differential Operation of Working.	11/10/2021
L20	2	Basic Parameter of OPAMP	18/10/2021
L21	2	Open and Closed Loop Configuration of OPAMP	18/10/2021
L22	2	OPAMP Application: OPAMP as Adder, Subtractor	21/10/2021
L23	2	OPAMP as Scale Changer, Average Amplifier	21/10/2021
L24	2	OPAMP as Scale Changer, Average Amplifier	22/10/2021
L25	2	OPAMP as Comparator, Integrator and Differentiator	22/10/2021
L26	2	Astable, Monostable Mode of Operation of 555 Timer	25/10/2021
L27	2	Oscillator: Barkhusen's Criteria of Oscillations	28/10/2021
L28	2	R-C Phase Shift Oscillator: using BJT and OPAMP	29/10/2021
L29	3	Wein Bridge Oscillator Working using BJT and OPAMP	29/10/2021
L30	3	Class Test	
L31	3	Unit 3: Digital Fundamentals: Difference between Analog and Digital Signals	08/11/2021
L32	3	Boolean Algebra Basic	11/11/2021
L33	3	Logic Gates: Universal Gates: Truth Table, Logic Expression	12/11/2021
L34	3	K-MAP Numerical	22/11/2021
L35	3	K-MAP Numerical	25/11/2021
L36	3	Half adder And Full Adder	26/11/2021
L37	3	Multiplexer and Demultiplexer	29/11/2021
L38	4	Basic of Flip Flops.	02/12/2021
L39	4	Basic Counter Designing.	03/12/2021
L40	4	Unit 4: The Elements of Communication System.	06/12/2021
L41	4	Brief working of each Elements of Communication System.	09/12/2021

L42	4	Transmission Media: Wired and Wireless	09/12/2021
L43	4	Need of Modulation: Concept of AM	10/12/2021
L44	4	Frequency Modulation Concept, Diagram, Waveform	13/12/2021
L45	4	Mobile Communication Concept : Cellular Concept	16/12/2021
L46	4	GSM Technique Overview	17/12/2021
L47	4	GSM Architecture	17/12/2021