

LECTURE PLAN (Theory)

CLASS: FE

SUBJECT: Engg. Physics

UNIT(X)	L.NO.(Y)	T.NO.(Z)	TOPICS TO BE COVERED	Wtge	UNIT(X)	L.NO.(Y)	T.NO.(Z)	TOPICS TO BE COVERED	Wtge
1	1	1	1 Principle of Superposition	2			3	31 Reflection of Sound	3
		2	2 Interference of light	1	2	3	1	32 Sabines Formula	4
		3	3 Young's Expt.	2			2	33 Absorption Coefficient	2
		4	4 Constructive Interference	2	2	4	1	34 Conditions of good acoustics	4
		5	5 Destructive Interference	2			2	35 Types of Noise	6
1	2	1	6 Coherent Beams	1	2	5	1	36 Production of Ultrasonics	2
		2	7 Interference by reflection	6			2	37 Magnetstriction Effect	6
		3	8 Interference by transmission	2	2	6	1	38 Piezoelectric Effect	6
1	3	1	9 Colours in thin film	4	2	7	1	39 Detection of Ultrasonics	4
		2	10 Wedge shaped thin film	6	2	8	1	40 Applications of Ultrasonics	7
		3	11 Fringe width	4	3	1	1	41 Unpolarised Light	1
1	4	1	12 Newton's Rings Expt.	7			2	42 Plane Polarised Light	1
		2	13 Optical flatness/planeness	4			3	43 Pile of Plates	3
		3	14 Antireflection coatings	4	3	2	1	44 Law of Malus	3
1	5	1	15 Diffraction of light	1			2	45 Brewsters Law	3
		2	16 Types of Diffraction	3	3	3	1	46 Double Refraction	6
		3	17 Fresnel Diffraction	4			2	47 Retardation Plates	3
1	6	1	18 Fraunhofer Diffraction	6	3	4	1	48 Optical Activity	2
1	7	1	19 Plane Diffraction grating	7			2	49 Specific Roatation	3
1	8	1	20 Scaterring of light	4			3	50 Uses of Polarides	4
		2	21 Rayleigh's Criterion	2	3	5	1	51 Properties of LASER	3
		3	22 Resolving power of Grating	2			2	52 Spontaneos Emission	1
		4	23 Dispersive power of grating	2			3	53 Stimulated Emission	1
2	1	1	24 Musical Sound	3	3	6	1	54 Population Inversion	6
		2	25 Noise	3			2	55 Two Level Laser System	7
		3	26 Velocity/ Freq. of Sound	2	3	7	1	56 Three Level Laser System	7
		4	27 Intensity/ Intensity level	1			2	57 Four Level Laser System	7
		5	28 Pitch/Timbre of Sound	1	3	8	1	58 LASER Welding	4
2	2	1	29 Echo/ Reverberation	3			2	59 Medical Applications	2
		2	30 Reverberation Time	3			3	60 Holography	4

LECTURE PLAN (Theory)

CLASS: FE

SUBJECT: Engg. Physics

UNIT(X)	L.NO.(Y)	T.NO.(Z)	TOPICS TO BE COVERED	Wtge	UNIT(X)	L.NO.(Y)	T.NO.(Z)	TOPICS TO BE COVERED	Wtge
4	1	1	61 Free electron theory	2	5	5	1	91 Schrodinger's Time Indep. eqn	7
		2	62 Band theory of solids	2			2	92 Schrodinger's Time Dep. eqn	6
		3	63 Classification of solids	4	5	6	1	93 Application of time Indep. Eqn	2
4	2	1	64 Intrinsic semiconductor	1	5	7	1	94 Particle in rigid box	6
		2	65 n-type extrinsic semiconductor	1			2	95 Tunnelling effect	2
		3	66 p-type extrinsic semiconductor	1			3	96 Tunnel diode	2
		4	67 Fermi level	4	6	1	1	97 Properties of Superconductors	2
4	3	1	68 Position of Fermi level	6			2	98 Zero electrical Resistance	4
		2	69 Effect on Fermi level	2			3	99 Meissner effect	4
4	4	1	70 Conductivity of Conductors	3			4	100 Persistent current	4
		2	71 Conductivity of Semiconductors	3			5	101 Isotope effect	4
		3	72 Effect on Conductivity	4			6	102 Critical magnetic field	4
4	5	1	73 Biasing of P-N Junction	6	6	2	1	103 Type-I Superconductors	6
		2	74 Energy band picture of P-N Junc.	2			2	104 Type-II Superconductors	6
4	6	1	75 Transistor	6	6	3	1	105 BCS Theory	6
		2	76 Energy band picture of Transistor	2			2	106 Cooper Pairs	1
4	7	1	77 Hall effect	3	6	4	1	107 Electromagnets	4
		2	78 Hall coefficient	2			2	108 Magnetic levitation	4
4	8	1	79 Photovoltaic effect	2			3	109 Josephson effect	3
		2	80 Solar cell	6	6	5	1	110 Properties of Nanoparticles	2
5	1	1	81 wave particle duality	2			2	111 Optical Properties	6
		2	82 De Broglie wavelength	3			3	112 Electrical Properties	6
		3	83 Matter waves detection	2	6	6	1	113 Structural Properties	6
		4	84 Electron Diffraction method	6			2	114 Magnetic Properties	6
5	2	1	85 Phase velocity	6			3	115 Mechanical Properties	6
		2	86 Group velocity	6	6	7	1	116 Synthesis of Nanoparticles	7
5	3	1	87 Heisenberg Uncertainty principle	6			2	117 Synthesis of Colloids	2
		2	88 Applications of Uncertainty	2	6	8	1	118 Colloidal route method	7
5	4	1	89 Concept of wave-function	2	6	9	1	119 Application of Nanotechnology	6
		2	90 Physical significance of ' Ψ '	4			2	120 Numericals	3