Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
01	01	Unit of Physical quantity, Fundamental & derived unit	Notes soft copy -			
02	01	Unit system, CGS, MKS, FPS & SI system of unit	—"—			
03	01	Advantages & disadvantages of SI unit system	—"—			
04	01	Seven basic (Fundamental) & supplementary units.	—"—			
05	01	dim^n formula & dim^n equation	—"—			
06	01	Application of dim^n equation ① & ②	—"—			
07	01	Application of dim^n eqn ③ & ④	—"—			
08	01	measurements, accuracy & precision, & error.	—"—			
09	01	error analysis	—"—			
10	01	Absolute, Relative & Percentage error.	—"—			
11	01	Significant figure & rounding off	—"—			
12	01	Numerical problem on unit - 1 topic.	—"—			

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
13	2	Force, types of forces, conservative & Non-conservative forces,	Notes soft copy			
14	2	frictional forces & their types.	—"—			
15	2	Advantages & disadvantages of frictional forces.	—"—			
16	2	Centripetal & centrifugal forces & their illustration.	—"—			
17	2	Gravitational forces, difference b/w g & G. Relation b/w g & G.	—"—			
18	2	factors affecting "g".	—"—			
19	2	variation in "g" w.r.to. height from earth surface.	—"—			
20	2	variation in "g" w.r.t. depth from earth surface.	—"—			
21	2	variation in "g" due shape & rotation of an earth.	—"—			
22	2	Elasticity, Hookes law, elastic limit & elastic fatigue.	—"—			
23	2	modulus of elasticity, Young modulus, bulk modulus, modulus of elasticity.	—"—			
24	2	Surface tension, molecular forces.	—"—			

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
25	2	surface energy, effect of temp.	Notes soft copy			
26	2	Cohesive & Adhesive forces.	—"—			
27	2	Excess pressure & its illustration. rise of liquid in capillary tube.	—"—			
28	2	Viscosity, coeff. of viscosity, Newtons law of Viscosity.	—"—			
29	2	streamline & Turbulent flow, Reynolds number	—"—			
30	2	Poisseulles equation, stokes law & their application.	—"—			
31	3	Refraction, laws of reflection, lenses & combination	—"—			
32	3	Absolute & relative refractive index & numerical question on it.	—"—			
33	3	Refraction of light through prism, angle of minimum deviation.	—"—			
34	3	Total internal refraction of light, critical angle, Application of TIR.	—"—			
35	3	optical fibre, NA of optical fibre.	—"—			
36	3	simple & compound microscope. optical instrument	—"—			
37	3	simple microscope in detail.	—"—			

Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
38	3.	compound microscope in detailed.	Notes & Xerox copy			
39	3.	Electromagnetic spectrum.	— " —			
40	3.	pure & impure spectrum.	— " —			
41	3	Condition to obtain pure spectrum. Visible range.	— " —			
42	3.	Numerical problem on Refractive index.	— " —			
43	3.	Numerical problem on prism	— " —			
44	3	Numerical problem on simple micros.	— " —			
45	3	Numerical problem on compound micros.	— " —			
46	3	Numerical on total internal reflection.	— " —			
47	4	current electricity, electric charge, Coulombs law & limitation.	— " —			
48	4	electric field, electric potential diff. b/w two points.	— " —			
49	4	Equipotential surface & their properties.	— " —			
50	4	Dielectric, types of dielectrics dielectric strength.	— " —			

Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
51	4	capacity, unit, principle of capacitor.	Notes soft copy			
52	4	factors affecting capacity, types of capacitor	—"—			
53	4	parallel plate capacitor in detailed.	—"—			
54	4	Spherical capacitor in detailed.	—"—			
55	4	magnetic line of force, magnetic induction line.	—"—			
56	4	current electricity, resistance,	—"—			
57	4	specific resistance,	—"—			
58	4	combination of resistance, series & parallel combination.	—"—			
59	4	internal resistance of cell	—"—			
60	4	Potential diff. & emf of cell.	—"—			
61	4	combination of cell, series & parallel.	—"—			
62	4	Simple application of wheatstone bridge	—"—			
63	4	meterbridge & potentiometer, electrical power.	—"—			

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
64	4	Numerical problem on whole chapter.	Notes soft copy			
65	5	Photoelectric effect, laws of Photoelectric emission.	—,,—			
66	5	Photoelectric equation, Threshold freq. & energy.	—,,—			
67	5	Photo cell.	—,,—			
68	5	x-ray properties & uses.	—,,—			
69	5	x-ray production method - Rontgen method	—,,—			
70	5	x-ray production method - modern Coolidge tube method	—,,—			
71	5	Laser - spontaneous & stimulated emission.	—,,—			
72	5	Population inversion, optical pumping. Active medium.	—,,—			
73	5	Ruby laser - description.	—,,—			
74	5	Semiconductor Laser - description.	—,,—			
75	5	Ultrasonic wave introduction - properties & uses.	—,,—			
76	5	production method of Ultrasonic wave	—,,—			