

LESSON PLAN FOR EVEN SEM
SESSION 2017-18

NAME OF ASSISTANT PROFESSOR :MEENAKSHI MAKLOHA
CLASS/SECTION :M.Sc.APPLIEDPHYSICS(IVSEM)
SUBJECT :FIBER OPTICS
APPLIED NUCLEAR TECH.

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	Introduction to optical fibres: importance an idea about generations of telephone system and optical fibres	MECHANICAL LAB: distribution of iron slab
DAY2 DATE 2-1-18	Propagation of light in optical fibres, Basic structure and optical path of an optical fibre, Acceptance angle and acceptance cone, Numerical Aperture	COMPUTER LAB: Algorithm of quadratic equation MECHANICAL LAB: measurement of size of iron slab ELECTRONICS LAB: Electronics project
DAY3 DATE 3-1-18	Modes of propagation meridional and skew rays	.....
DAY4 DATE 4-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism pitch number-100 MECHANICAL LAB: drilling of iron slab
DAY5 DATE 5-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-100) ELECTRONICS LAB: Electronics project
DAY6 DATE 6-1-18	Single mode propagation ,comparison of step and graded index fibres	.....
DAY7 DATE 8-1-18	classification of optical fibres: stepped index fibre, stepped-index monomode fibre	MECHANICAL LAB: drilling of iron slab
DAY8 DATE 9-1-18	Disadvantage of monomode fibre	COMPUTER LAB: Flowchart of quadratic equation MECHANICAL LAB: drilling of iron slab ELECTRONICS LAB: Electronics project

DAY9 DATE 10-1-18	Graded index multi mode fibre	.....
DAY10 DATE 11-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-100) MECHANICAL LAB: drilling of iron slab
DAY11 DATE 12-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-100) ELECTRONICS LAB: Electronics project
DAY12 DATE 13-1-18	Introduction to fibre fabrication technique	.....
DAY13 DATE 15-1-18	Outside vapour phase oxidation, vapour phase axial deposition	MECHANICAL LAB: Cutting of iron slab
DAY 14 DATE 16-1-18	Modified chemical vapour deposition	COMPUTER LAB Program of quadratic equation MECHANICAL LAB: Cutting of iron slab ELECTRONICS LAB: Electronics project
DAY15 DATE 17-1-18	Fibre cable construction ,strength member	.....
DAY16 DATE 18-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-120) MECHANICAL LAB: Cutting of iron slab
DAY17 DATE 19-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-120) ELECTRONICS LAB: Electronics project
DAY18 DATE 20-1-18	Cable tensile loading, minimum bend radius, losses incurred during installation of cables Testing of cables, cable selection criteria	.....
DAY19 DATE 22-1-18	HOLIDAY	
DAY20	SPORTS DAY	

DATE 23-1-18		
DAY21 DATE 24-1-18	HOLIDAY	
DAY22 DATE 25-1-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-120) MECHANICAL LAB: Cutting of iron slab
DAY23 DATE 26-1-18	HOLIDAY	
DAY 24 DATE 27-1-18	Measurement of optical fibres: measurement of N A and its related terms	.....
UNIT/PART II		
	THEORY	
DAY1 DATE 29-1-18	Measurement of optical fibre attenuation	MECHANICAL LAB:Cutting of iron slab
DAY2 DATE 30-1-18	Loss measurement of each mode,Scattering losses measurement	COMPUTER LAB: Algorithm of bisection method MECHANICAL LAB: Cutting of iron slab ELECTRONICS LAB: Electronics project
DAY3 DATE 31-1-18	HOLIDAY	
DAY4 DATE 1-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-120) MECHANICAL LAB: Cutting of iron slab
DAY5 DATE 2-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-220) ELECTRONICS LAB: Electronics project
DAY6 DATE 3-2-18	Measurement of dispersion losses, Measurement of refractive index	.....
DAY7 DATE 5-2-18	Cut off wavelength measurement	MECHANICAL LAB: scrapping and shaping of iron slab
DAY8 DATE 6-2-18	Measurement of disperssion together with cut off wavelength	COMPUTERLAB: flowchart of bisection method MECHANICAL LAB:

		scrapping and shaping of iron slab ELECTRONICS LAB: Electronics project
DAY9 DATE 7-2-18	Macrobending losses measurement	.....
DAY10 DATE 8-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-220) MECHANICAL LAB: scrapping and shaping of iron slab
DAY11 DATE 9-2-18	ASSIGNMENT 1	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-220) ELECTRONICS LAB: Electronics project
DAY12 DATE 10-2-18	HOLIDAY	
DAY13 DATE 12-2-18	Measurement of mode field diameter	MECHANICAL LAB: scrapping and shaping of iron slab
DAY14 DATE 13-2-18	HOLIDAY	.....
DAY15 DATE 14-2-18	Near field scanning technique	.....
DAY16 DATE 15-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-220) MECHANICAL LAB: scrapping and shaping of iron slab
DAY17 DATE 16-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-302) ELECTRONICS LAB: Electronics project
DAY18 DATE 17-2-18	Indirect method	.....
DAY19	Explanation of indirect method	MECHANICAL LAB:

DATE 19-2-18		polishing of spanner
DAY20 DATE 20-2-18	Transverse off set technique	COMPUTER LAB: Program of bisection method MECHANICAL LAB:polishing of spanner ELECTRONICS LAB: Electronics project
DAY21 DATE 21-2-18	Variable aperture technique	.....
DAY22 DATE 22-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-302) MECHANICAL LAB: Polishing of spanner
DAY23 DATE 23-2-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-302) ELECTRONICS LAB: Electronics project
UNIT/PART III		
	THEORY	
DAY1 DATE 24-2-18	Introduction to optical fibre communication system	.....
DAY2 DATE 26-2-18	High performance transmitter circuit ,Transmitter for fibre optic communication	MECHANICAL LAB:fine touch of spanner
DAY3 DATE 27-2-18	TEST & SEMINAR (PG CLASSES)	COMPUTER LAB: Algorithm of simpson's 3/8rule MECHANICAL LAB: distribution of iron rod for screw driver ELECTRONICS LAB: Electronics project
DAY4 DATE 28-2-18	HOLIDAY	
DAY5 DATE 1-3-18	HOLIDAY	
DAY6 DATE 2-3-18	HOLIDAY	
DAY7 DATE 3-3-18	HOLIDAY	
DAY8 DATE 5-3-18	LED analog transmitter	MECHANICAL LAB: measurement of iron rod for screw driver
DAY9	Comparison between analog and digital	COMPUTER LAB: flowchart

DATE 6-3-18	transmitter	of simpson 1/3 rd rule MECHANICAL LAB: Grinding of iron rod for screw driver ELECTRONICS LAB: Electronics project
DAY10 DATE 7-3-18	Laser transmitter	.....
DAY11 DATE 8-3-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-302) MECHANICAL LAB: Grinding of iron rod for screw driver
DAY12 DATE 9-3-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-304) ELECTRONICS LAB: Electronics project
DAY13 DATE 10-3-18	ASSIGNMENT 2	
DAY 14 DATE 12-3-18	Analog laser transmitter,Digital laser transmitter	MECHANICAL LAB: Grinding of iron rod for screw driver
DAY15 DATE 13-3-18	Analog to Digital conversion	COMPUTER LAB: Program of simpson 1/3 rd rule MECHANICAL LAB: Grinding of iron rod for screw driver ELECTRONICS LAB: Electronics project
DAY16 DATE 14-3-18	Digital multiplexing	.....
DAY17 DATE 15-3-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-304) MECHANICAL LAB: Scrapping and shaping of iron rod for screw driver
DAY18 DATE 16-3-18	.....	OPTICS LAB: Fabrication of optical equilateral prism(pitch number-304)

		ELECTRONICS LAB: Electronics project
DAY19 DATE 17-3-18	Transmitter design	
DAY20 DATE 19-3-18	Bit stuffing	MECHANICAL LAB: Scrapping and shaping of iron rod for screw driver
DAY21 DATE 20-3-18	Fibre optic receiver, High performance receiver	COMPUTER LAB: algorithm of simpson 3/8 rule MECHANICAL LAB: Scrapping and shaping of iron rod for screw driver ELECTRONICS LAB: Electronics project
DAY22 DATE 21-3-18	CONDITIONAL TEST	
DAY23 DATE 22-3-18	CONDITIONAL TEST	
DAY 24 DATE 23-3-18	HOLIDAY	
DAY 25 DATE 24-3-18	Repeaters	.....
UNIT/PART IV		
	THEORY	
DAY1 DATE 26-3-18	Fibre based modems	MECHANICAL LAB: Scrapping and shaping of iron rod for screw driver
DAY2 DATE 27-3-18	Transreceiver	COMPUTER LAB: flowchart of simpson 3/8 rule MECHANICAL LAB: Scrapping and shaping of iron rod for screw driver ELECTRONICS LAB: Electronics project
DAY3 DATE 28-3-18	Transreceiver (Explanation)	.....
DAY4 DATE 29-3-18	HOLIDAY	
DAY5 DATE 30-3-18	.....	OPTICS LAB: polishing of prism ELECTRONICS LAB: Electronics project
DAY6 DATE 31-3-18	Introduction and basic principle of Van De Graff accelerator	.....
DAY7	Working of Van De Graff accelerator	MECHANICAL LAB:

DATE 2-4-18		polishing of screw driver
DAY8 DATE 3-4-18	Applications of Van De Graff accelerator	COMPUTER LAB: Program of simpson 3/8 rule MECHANICAL LAB: polishing of screw driver ELECTRONICS LAB: Electronics project
DAY9 DATE 4-4-18	Introduction Tendon accelerator	.....
DAY10 DATE 5-4-18	.....	OPTICS LAB: polishing of prism MECHANICAL LAB: polishing of screw driver
DAY11 DATE 6-4-18	.....	OPTICS LAB: polishing of prism ELECTRONICS LAB: Electronics project
DAY12 DATE 7-4-18	Cyclotron	.....
DAY13 DATE 9-4-18	Pelletron accelerator	MECHANICAL LAB: polishing of screw driver
DAY14 DATE 10-4-18	Focusing in cyclotrons, Variable energy cyclotron	COMPUTER LAB: algorithm of least square method MECHANICAL LAB: polishing of screw driver ELECTRONICS LAB: Electronics project
DAY15 DATE 11-4-18	Relativistic limitation	.....
DAY16 DATE 12-4-18	.....	OPTICS LAB: polishing of prism MECHANICAL LAB: handle joing of screw driver
DAY17 DATE 13-4-18	.....	OPTICS LAB: polishing of prism ELECTRONICS LAB: Electronics project
DAY18 DATE 14-4-18	HOLIDAY	
DAY19 DATE 16-4-18	Microtone Electron synchrotron	MECHANICAL LAB: fine touch of screw driver
DAY20 DATE 17-4-18	Medical application of accelerators, Mega volt therapy	COMPUTER LAB: Flowchart and program of least square method MECHANICAL LAB: revision

		ELECTRONICS LAB: Electronics project
DAY21 DATE 18-4-18	HOLIDAY	.....
DAY22 DATE 19-4-18	.....	OPTICS LAB: revision MECHANICAL LAB: revision
DAY23 DATE 20-4-18	.....	OPTICS LAB: revision ELECTRONICS LAB: Electronics project

NAME OF ASSISTANT PROFESSOR : MEENAKSHI MAKLOHA
CLASS/SECTION : M.Sc. APPLIED PHYSICS(II-SEM)
SUBJECT :ELECTROMAGNETIC THEORY

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper Combinational clipper
DAY3 DATE 3-1-18	.....	CLAMPER CIRCUITS: Positive clamper, Negative clamper
DAY4 DATE 4-1-18	Introduction to Ionospheric propagation	SOIL CONDUCTIVITY: Analog conductometer
DAY5 DATE 5-1-18	Explanation Ionospheric propagation	SOIL CONDUCTIVITY
DAY7 DATE 8-1-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper Combinational clipper
DAY9 DATE 10-1-18	.....	CLAMPER CIRCUITS: Positive clamper, Negative clamper
DAY10 DATE 11-1-18	Introduction to ionosphere	SOIL CONDUCTIVITY: Analog conductometer
DAY11 DATE 12-1-18	Effective C and O of ionized gas	SOIL CONDUCTIVITY
DAY13 DATE 15-1-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper Combinational clipper
DAY15	.....	CLAMPER CIRCUITS:

DATE 17-1-18		Positive clamper,Negative clamper
DAY16 DATE 18-1-18	Reflection and Refraction of waves by ionospher	SOIL CONDUCTIVITY: Analog conductometer
DAY17 DATE 19-1-18	Variation in ionosphere	SOIL CONDUCTIVITY
DAY19 DATE 22-1-18	HOLIDAY	
DAY20 DATE 23-1-18	SPORTS DAY	
DAY21 DATE 24-1-18	HOLIDAY	
DAY22 DATE 25-1-18	Attenuation factor for ionospheric propagation	SOIL CONDUCTIVITY: Analog conductometer
DAY23 DATE 26-1-18	HOLIDAY	
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 29-1-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper Combinational clipper
DAY3 DATE 31-1-18	HOLIDAY	
DAY4 DATE 1-2-18	Sky wave transmission	SOIL CONDUCTIVITY: Analog conductometer
DAY5 DATE 2-2-18	Effect of earth's magnetic field	SOIL CONDUCTIVITY
DAY7 DATE 5-2-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper Combinational clipper
DAY9 DATE 7-2-18	.....	CLAMPER CIRCUITS: Positive clamper,Negative clamper
DAY10 DATE 8-2-18	Wave propagation in ionosphere,Faraday rotation	SOIL CONDUCTIVITY: Analog conductometer
DAY11 DATE 9-2-18	ASSIGNMENT 1	SOIL CONDUCTIVITY
DAY12 DATE 10-2-18	HOLIDAY	
DAY13 DATE 12-2-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY14	HOLIDAY	

DATE 13-2-18		
DAY15 DATE 14-2-18	.....	CLAMPER CIRCUITS: Positive clamper,Negative clamper
DAY16 DATE 15-2-18	.....	SOIL CONDUCTIVITY: Analog conductometer
DAY17 DATE 16-2-18	Radiation	SOIL CONDUCTIVITY
DAY18 DATE 17-2-18	Other ionospheric phenomenon	.....
DAY19 DATE 19-2-18	Normal variations in ionosphere	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY21 DATE 21-2-18	.....	CLAMPER CIRCUITS: Positive clamper ,Negative clamper
DAY22 DATE 22-2-18	Potential function	SOIL CONDUCTIVITY: Analog conductometer
DAY23 DATE 23-2-18	Electromagnetic field	SOIL CONDUCTIVITY
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY2 DATE 26-2-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY3 DATE 27-2-18	TEST & SEMINAR (PG CLASSES)	
DAY4 DATE 28-2-18	HOLIDAY	
DAY5 DATE 1-3-18	HOLIDAY	
DAY6 DATE 2-3-18	HOLIDAY	
DAY7 DATE 3-3-18	HOLIDAY	
DAY8 DATE 5-3-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY10 DATE 7-3-18	...	CLAMPER CIRCUITS: Positive clamper,Negative clamper
DAY11	The oscillating dipole power radiated by a	SOIL CONDUCTIVITY:

DATE 8-3-18	current element	Analog conductometer
DAY12 DATE 9-3-18	Short antenna	SOIL CONDUCTIVITY
DAY13 DATE 10-3-18	ASSIGNMENT 2	.....
DAY 14 DATE 12-3-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY16 DATE 14-3-18	.....	CLAMPER CIRCUITS: Positive clamper, Negative clamper
DAY17 DATE 15-3-18	Power radiated by a monopole or half wave dipole	SOIL CONDUCTIVITY: Analog conductometer
DAY18 DATE 16-3-18	Electromagnetic field close to an antenna	SOIL CONDUCTIVITY
DAY20 DATE 19-3-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY22 DATE 21-3-18	CONDITIONAL TEST	
DAY23 DATE 22-3-18	CONDITIONAL TEST	
DAY 24 DATE 23-3-18	HOLIDAY	
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 26-3-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY3 DATE 28-3-18	.....	CLAMPER CIRCUITS: Positive clamper, Negative clamper
DAY4 DATE 29-3-18	HOLIDAY	
DAY5 DATE 30-3-18	Antenna fundamentals, Network theorems	SOIL CONDUCTIVITY
DAY7 DATE 2-4-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper,

		Combinational clipper
DAY9 DATE 4-4-18	.....	CLAMPER CIRCUITS: Positive clamper,Negative clamper
DAY10 DATE 5-4-18	Directional properties of dipole antennas	SOIL CONDUCTIVITY: Analog conductometer
DAY11 DATE 6-4-18	Travelling wave antennas	SOIL CONDUCTIVITY
DAY13 DATE 9-4-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY15 DATE 11-4-18	.....	CLAMPER CIRCUITS:Positive clamper ,Negative clamper
DAY16 DATE 12-4-18	Two element array,Multiplication of patterns	SOIL CONDUCTIVITY: Analog conductometer
DAY17 DATE 13-4-18	Horizontal patterns in broadcasting arrays	SOIL CONDUCTIVITY
DAY18 DATE 14-4-18	HOLIDAY	
DAY19 DATE 16-4-18	.....	CLIPPING CIRCUITS: Positive clipper, Negative clipper, Biased clipper, Combinational clipper
DAY21 DATE 18-4-18	HOLIDAY	
DAY22 DATE 19-4-18	Effect of earth on vertical patterns in broadcasting arrays	SOIL CONDUCTIVITY: Analog conductometer
DAY23 DATE 20-4-18	Binomial arrays	SOIL CONDUCTIVITY

MEENAKSHI MAKLOHA

NAME OF TEACHER