BHAI GURDAS INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF APPLIED SCIENCES

LESSON PLAN

Subject Name: - Optics and Modern Physics BTPH-102-18

Year: - 2022-23

Semester: - 2ND

Lectur	Unit	Date/	Торіс	Teaching	Reference
e		Week	•	Aids	
Lectur	UNIT	WEE	Introduction to	Chalk	Engineeering physics by Dr. Rakesh Dogra
e :1	-I	K-1	Oscillators	Board	
Lectur	1		Simple Harmonic	Presentatio	
e :2			oscillators and its	n	
			Differential		
			equations		
Lectur			Forced Mechanical	Chalk	
e :3			Oscillator and its	Board	
			fundamentals		
Lectur			Numerical	Chalk	
e :4			problems	Board	
Lectur		WEE	Damping and	Presentatio	Engineeering physics by Dr. Rakesh Dogra
e :5		K-2	Damped	n	
			oscillations and		
			steady state motion		
Lectur			Waves and	Chalk	
e :6			transverse wave	Board	
			equation of string		
Lectur			Wave equation of	Chalk	
e :7			string	Board	
Lectur			Numerical	Chalk	
e :8			problems	Board	
Lectur		WEE	Reflection and	Chalk	S Chanda Engineering Physiics
e :9		K-3	Transmission of	Board	
			string		
Lectur			Impendence	Chalk	
e :10			matching,	Board	
			Standing wave,		
			Longitudnal waves		
	-		and their equation		
Lectur			Free electron	Presentatio	
e :11			theory, Drude	n	
			model,		
			Dependence of		
			Fermi level on		
			carrier		
			concentration and		
.	4		temperature		
Lectur			Numerical	Chalk	
e :12	4		problems	Board	
Lectur		WEE	Bloch theorm,	Presentatio	Semiconductor physics by S.P Taneja and Sandeep Rajan
e :13		K-4	Density of states in	n	

Subject Code: -

			1-D,2-D, 3-D And		
			origin of energy		
			hands		
Lectur	-		Problem	Chalk	
e ·14			discussion	Board	
Lectur			Numerical	Chalk	
			noblems	Roard	
L ootur	UNIT	WEE	Introduction to	Dualu	Engineeering physics by Dr. Bakash Dagra
		WEE V 5	Ontios and lason	riesentatio	Engineeering physics by DI. Rakesh Dogra
L cotur	-11	K-3	Voung's double	II Dragontatio	
			slit experiment	riesentatio	
U actur	-		Sitt experiment	II Dragontatio	
			riggens s rincipie	riesentatio	
U sotur			Numerical	II Challe	
			numerical	Deard	
e 19	-	WEE	Michalace	Board	https://www.tube.com/wweteb2
Lectur		WEE	Michelson	Presentatio	<u>nttps://youtube.com/watcn?</u>
e :20		K-0	Interferometer	n	V=6E12GeU2/VW&SI=ENSIKAIECWIOMAFE
Laster			Classification of	Ducantatia	
Lectur			Differentian	Presentatio	
e :21			Diffraction	n Cl. II	
Lectur			Methods of	Chalk	
e :22			Obtaining	Board	
			Interference		
			patterns; division		
			by wavefront and		
T /			amplitude	<u> </u>	
Lectur			Numerical	Chalk	
e :25	-	WEE	Differentian anatima	Board	Fusion and the bar bar Da Dalash Daran
Lectur		WEE V 7	Diffraction grating	Chalk	Engineeering physics by Dr. Rakesh Dogra
e :24		K-/	and resolution	Board	
T (power		
Lectur			Laser; stimulated	Presentatio	
e :25			absorption,	n	
			spontaneous		
			emission,		
			stimulated		
Tastan	-			Durantatia	
Lectur			Light	Presentatio	
e :20			amplification of	n	
			sumulated		
			radiations: Dopulati		
			autations, roputati		
			conditions of lasor		
			action		
Leotur	ł		Numerical	Chall	
			nullencal	Doard	
Lectur	ł	WEE	Various notes and	Challe	
			various notes and	Board	
C.20		N-0	beem	Dualu	
Loctor	1		Tumon of losser	Dragantati	
			1 ypes of laser;	Presentatio	
6.29			some state and gas	11	
			asci allu its		
Lactur	ł		La Na lagar and	Dragantatia	https://wowtube.com/watch?
Lectur			ine-me laser and	riesentatio	

e ·30			Ruby laser	n	v=RvY4PEnV2RO&si=EnSIkaIECMiOmarE
0.50			working and		
			anlications		
Lectur	-		Numerical	Chalk	
			nrohlems	Roard	
L ootur	LINIT	WEE	Problem	Challe	
		WEE VO	Pioblelli	Deard	
e.52	-111	K-9		Doald Challe	Fusion and the fusion has Da Dalarda Daran
Lectur			Introduction to	Chaik	Engineeering physics by Dr. Rakesh Dogra
e :33			Quantum	Board	
T	-		mechanics	C1 11	
Lectur			wave nature of	Chalk	
e :34	-		particles	Board	
Lectur			Numerical	Chalk	
e :35	-		problems	Board	
Lectur		WEE	Probability density	Chalk	Engineeering physics by Dr. Rakesh Dogra
e :36	-	K-10		Board	
Lectur			Uncertainity	Chalk	
e :37	-		Principle	Board	
Lectur			Time dependent	Chalk	
e :38			and independent	Board	
			schrodinger		
			equation for wave		
	1		function		
Lectur			Numerical	Chalk	
e :39			problems	Board	
Lectur		WEE	Solution of	Chalk	S Chanda Engineering Physiics
e :40		K-11	stationary states	Board	
			schrodinger		
			equation for one		
			dimension particle		
			in box		
Lectur			Expectation values	Chalk	S Chanda Engineering Physiics
e :41				Board	
Lectur			Linear Harmonic	Presentatio	https://youtube.com/watch?v=hXdGKLMLq-
e :42			oscillator	n	<u>Y&si=EnSIkaIECMiOmarE</u>
Lectur			Numerical	Chalk	
e :43			problems	Board	
Lectur	UNIT	WEE	Introduction to	Chalk	Semiconductor physics by S.P Taneja and Sandeep Rajan
e :44	-IV	K-12	Semiconductors	Board	
			and Solids		
Lectur]		P type and N type	Chalk	
e :45			semiconductors	Board	
Lectur]		Carrier generation	Chalk	
e :46			and recombination	Board	
			process		
Lectur	1		Numerical	Chalk	
e :47			problems	Board	
Lectur	1	WEE	Types of electronic	Chalk	
e :48		K-13	materials	Board	
Lectur	1		Carrier transport	Chalk	
e :49				Board	
Lectur	1		PN Junction diode	Chalk	
e :50			and Zener diode	Board	
Lectur	1		Numerical	Chalk	
		1			

e :51		problems	Board	
Lectur	WEE	Problem	Chalk	Semiconductor physics by S.P Taneja and Sandeep Rajan
e :52	K-14	Discussion	Board	
Lectur		Previous year	Class Test	
e :53		question paper		
		discussion		
Lectur		Numerical	Chalk	Engineeering physics by Dr. Rakesh Dogra
e :54		problems	Board	
Lectur		Doubt session	Chalk	
e :55			Board	