DEGLOOR COLLEGE,DEGLOOR

DEPT. OF PHYSICS

YEAR:2017-18

ANNUAL TEACHING PLAN

CLASS:B.Sc.I Year

NAME OF TEACHER : Dr. Bhanudas Narwade

SEMESTER - I

PAPER NAME & NO.: Mechanics and properties of matter

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
1	UNIT-I MECHANICS	12	5/7/2017	1/8/2017	13	6/7/2017	5/8/2017	
	Introduction,Laws of mechanics,frame of							
	reference,centre of mass, conservation of							
	momentum,work energy theorem							
	Angular momentum,torque Newtons laws of							
	gravitation,Kepler's laws,Deduction of Keplers							
	laws from Newton laws,gra. Potential							
	and intensity inside and outside the sphere							
2	UNIT-II SURFACE TENSION	10	3/8/2017	22-8-2017	09	15·9·17	5·10·17	
	Defination,curvature pressure and s.t.							
	Difference of pressure,Exp.For excess pressure							
	S.T. by Jaeger's Method							
	S.T. byFerguson Method							

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
3	**UNIT-III viscosity**	10	23/8/2017	12/9/2017	5.9.117 08	S.9.17	15.9.17	
	Coefficient of viscosity,Streamline flow							
	Critical velocity,Bernoulli's Principle							
	Poiseuille's equation							
	Poiseuille's method							
4	**UNIT-IV ELASTICITY**	12	13/9/2017	4/10/2017	13	10.8.201	4.9.17	4th unit Taught After Ist unit
	Types of stress and strain							
	Types of Elasticity							
	Twisting couple							
	Torsional Pendulum							
	Bending of Beam							
	Bending moment							
	Cantilever							
	Depression of Beam							
	Y by bending of beams							

Name and Sign. Of Teacher

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DEGLOOR COLLEGE,DEGLOOR

DEPT. OF PHYSICS

YEAR:2017-18

ANNUAL TEACHING PLAN

CLASS:B.Sc.II Year

NAME OF TEACHER : Dr. Bhanudas Narwade

SEMESTI III

PAPER NAME & NO.: Waves, Acoustics & Ultrasonics

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
1	**UNIT-I WAVES**							
	Introduction, Relation between wave velocity							
	and partical velocity,Differntial equation of							
	wave motion,Energy of progressive wave	10	5/7/2017	1/8/2017	9	11/7/2017	1/8/2017	
	Equation of vibrating string,Velocity							
	of transvrse wave,Frequency and period							
	Numerical problems							
2	**UNIT-II STATIONARY WAVES**							
	Analytical treatment of stationary waves							
	Pressure and density at nodes and antinodes	10	2/8/2017	22-8-2017	9	2.8.17	22.8.17	
	Distribution of energy in stationary wave							
	Energy not transferred							

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
3	**UNIT-III FREE AND FORCED VIBRATIONS**	11	23/8/2017	16/9/2017	09	23·8·17	16·9·	
	Free forced vobrationd, Resonance							
	Energy of oscillatory motion, Damped SHM							
	Aperiodic, critically damped motion							
	Effect of damping, Sharpness of resonance							
4	**UNIT-IV ACOUSTICS AND ULTRASONICS**	10	17/9/2016	4/10/2017	5-9 8	·5-9	22-9	
	ACOUSTICS							
	Reverbration Reverbration time,							
	Sabin's formula, absorption coefficient							
	determination of absorbtion coefficient							
	conditions for good acoustics							
	ULTRASONICS							
	Piezo-electric and Magnetostriction effect							
	Piezo-electric and Magnetostriction oscillator							
	Detection of ultrasonic waves							
	Acoustic grating, Kunds tube method							
	Applications of ultrasonics							

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DEGLOOR COLLEGE, DEGLOOR

DEPT. OF PHYSICS

YEAR:2017-18

ANNUAL TEACHING PLAN

CLASS:B.Sc.III Year

NAME OF TEACHER: Dr. Bhanudas Narwade
SEMESTER   :   V
PAPER NAME & NO.:   Quantum Mechanics

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
1	UNIT-I PARTICAL PROPERTIES OF WAVES							
	Introduction, Photoelectric effect							
	Comton effect,de-Broglies waves,							
	Wave function, de-Broglies wave velocity,							
	Wave and Group velocities,G.P.Thomson	12	4/7/2017	28/7/2017	10	13/7/2017	1/8/2017	
	experiment, Uncertainty principal							
	Applications,Wave particle duality							
	Numerical Problems							
2	UNIT-II SCHRODINGER'S EQUATION							
	Introduction,Schrodinger's equation							
	Time dependent form,probability current							
	Expectation values,Operators, Schrodinger's	10	29/7/2017	26/8/2017	9	22.8	22.8	
	Equation -steady state form,							
	Eigen values and function problems							

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
3	**UNIT-III APPLICATION OF QUANTUM MECHANICS**	9	27/8/2017	14/9/2017	8	23·8	5·9	
	Introduction,partical in a box							
	Energy quantization,wave function,							
	Momentum quantization,Harmonic oscillator							
	Energy level,Particle in 3-D box							
4	**UNIT-IV QUANTUM THEORY OF *H* ATOM**	11	15/9/2017	3/10/2017	10	6·9	2·10·''	
	Schrodinger's equation for the Hydrogen atom							
	in spherical polar co-ordinates							
	separation of variables,							
	Quantum Numbers-							
	Total quantum numbers,							
	Orbital quantum numbers,magnetic quantum							
	numbers, spin quantum numbers							

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DEGLOOR COLLEGE, DEGLOOR

DEPT. OF PHYSICS
ANNUAL TEACHING PLAN

YEAR:2017-18

CLASS:B.Sc.II Year

NAME OF TEACHER: Dr. Bhanudas Narwade
SEMESTER : Annual pattern
PAPER NAME & NO.: Practical Course (X Paper)

SR.NO.	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
	NAME OF EXPERIMENT							
1	Explaination : M.I.of flywheel	3	19/7/2017	19/7/2017	3	19/7/2017	19/7/2017	
2	g by Katers Pendulum							
3	Y -by Cantilever							
4	Experiments: of M.I.of flywheel	9	26/7/2017	9/8/2017	9	26/7/2017	10//2017	
5	g by Katers Pendulum							
6	Y- by Cantilever							
7	Explaination : n- by Torsional pendulum	3	16/8/2017	16/8/2017	3	16·8	16·8	
8	Y &n by Searle's method							
9	S.T. by Fergusson method							
10	Experiments : n- by Torsional pendulum	9	23/8/2017	6/9/2017	9	23·8	6·9	
11	Y &n by Searle's method							
12	S.T. by Fergusson method							
13	Explaination : Helmholtz Resonator	3	13/9/2017	13/9/2017	3	·13·9	13·9	
14	Frequency of A.C. by sonometer							
15	Experiments : Helmholtz Resonator	6	20/9/2017	27/9/2017	6	20·9	20·9	
16	Frequency of A.C. by sonometer							
17	Revision	3	5/10/2017	5/10/2017				

SR.NO.	TOPIC / SUB TOPIC	Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		REMARK
			From	To		From	To	
	NAME OF EXPERIMENT							
1	**Explaination** : Calibration of spectrometer	3	15/11/2017	15/11/2017	2	15·11	15·11	
2	Wavelength Newtons Ring							
3	i-d curve by spectrometer							
4	**Experiments** : Calibration of spectrometer	9	22/11/2017	6/12/2017	9	22·11 5·12·17	30·12·17	
5	Wavelength Newtons Ring							
6	i-d curve by spectrometer							
7	**Explaination** :R.P.Telescope	3	13/12/2017	13/12/2017	3	6·1·18	6·1·18	
8	Diffraction grating normal incidence							
9	Characteristics of solar cell							
10	**Experiments**:R.P.Telescope	9	20/12/2017	10/1/2018	9	6·1·18	20·1·18	
11	Diffraction grating normal incidence							
12	Characteristics of solar cell							
13	**Explaination** :R.P. of Grating	3	17/1/2018	17/1/2018	3	8·2·	8·2	
14	Wavelength of LASER by Grating							
15	**Experiments**:R.P. of Grating	6	1/2/2018	8/2/2018	6	12·2	12·2	
16	Wavelength of LASER by Grating							
17	Revision	6	15/2/2018	22/2/2018				

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