

A.V.E.S.

DEGLOOR COLLEGE, DEGLOOR

DEPT. OF PHYSICS

ANNUAL TEACHING PLAN

YEAR:2016-17

CLASS:B.Sc.II Year

NAME OF TEACHER : Dr. Bhanudas Narwade

SEMESTER 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	10	01.07.2016	01.08.2016	14	4/7/2016	3/8/2016	
	Introduction, Relation between wave velocity and partical velocity, Differential equation of wave motion, Energy of progressive wave							
	Equation of vibrating string, Velocity of transvrse wave, Frequency and period							
	Numerical problems							
2	UNIT-II STATIONARY WAVES	11	02.08.2016	24-8-2016	10	19.8.16	01.9.16	
	Analytical treatment of stationary waves							
	Pressure and density at nodes and antinodes							
	Distribution of energy in stationary wave							
	Energy not transferred							

SR.NO	TOPIC / SUB TOPIC	PLANNING				EXECUTION		REMARK
		Expe. Period	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
3	UNIT-III FREE AND FORCED VIBRATIONS	12	29/8/2016	21/9/2016	11	1-9-2016	15-9-2016	
	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	12	26/9/2016	27/10/2016	9	16-9-2016	5-10-2016	
	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							

BSC

Name and Sign. Of Teacher

Dr. Namade B.S

BSC

H.O.D.

Dept. of Physics
Degloor College, Degloor
Dist. Nanded

[Signature]

Principal


Degloor College
PRINCIPAL
A.V.E.S. Degloor College, Degloor
Dist. Nanded (M.S.)


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DEGLOOR COLLEGE, DEGLOORDEPT. OF PHYSICS
ANNUAL TEACHING PLANYEAR:2016-17
CLASS:B.Sc.III YearNAME 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 PARTIAL PROPERTIES OF WAVES	12	01.07.2016	01.08.2016	13	04.07.2016	22.8.16 12/8	
	Introduction, Photoelectric effect							
	Compton effect, de-Broglies waves,							
	Wave function, de-Broglies wave velocity,							
	Wave and Group velocities, G.P. Thomson							
	experiment, Uncertainty principal							
	Applications, Wave particle duality							
	Numerical Problems							
2	UNIT-II SCHRODINGER'S EQUATION	12	03.08.2016	07.09.2016	10	24.8.16	12.9.16	
	Introduction, Schrodinger's equation							
	Time dependent form, probability current							
	Expectation values, Operators, Schrodinger's							
	Equation -steady state form,							
	Eigen values and function problems							

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			From	To		From		To
3	UNIT-III APPLICATION OF QUANTUM MECHANICS	9	13/9/2016	10/08/2016	9	13.9.16	22.9.16	
	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	12	10/04/2016	27/10/2016	10	22.9.16	5.10.16	
	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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 H.O.D. Lead
 Physics Department
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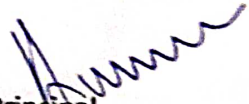
NAME OF TEACHER: Dr. Bhanudas Narwade
 SEMESTER : Annual pattern
 PAPER NAME & NO.: Practical Course (X Paper)

SR.NO	TOPIC / SUB TOPIC	PLANNING			EXECUTION			REMARK
		Expe. Period	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
	NAME OF EXPERIMENT							
1	Explanation : M.I.of flywheel	3	20/7/2016	20/7/2016	3	20/7/2016	20/7/2016	
2	g by Katers Pendulum							
3	Y -by Cantilever							
4	Experiments: of M.I.of flywheel	9	27/7/2016	08/09/2016	9	27.7	8-9	
5	g by Katers Pendulum							
6	Y- by Cantilever							
7	Explanation : n- by Torsional pendulum	3	16/8/2016	16/8/2016	3	16.8	16.8	
8	Y &n by Searle's method							
9	Thermal conductivity by Searle's method							
10	Experiments : n- by Torsional pendulum	9	23/8/2016	09/09/2016	9	23.8	9.6	
11	Y &n by Searle's method							
12	Thermal conductivity by Searle's method							
13	Explanation : S.T. by Fergusson method	3	13/9/2016	13/9/2016	3	13.9	13.9	
14	Frequency of A.C. by sonometer							
15	Experiments : S.T. by Fergusson method							
16	Frequency of A.C. by sonometer	6	20/9/2016	27/9/2016	6	-	-	
17	Revision	3	10/05/2016	10/05/2016	3	-	-	

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		Expe. Periods	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From	To	
	NAME OF EXPERIMENT							
1	Explanation :Conductivity by Lee's method	3	18/11/2016	18/11/2016	3	18-11-16	18-11-16	
2	R.P. of Grating							
3	Y by Konings method							
4	Experiments :Conductivity by Lee's method	9	25/11/2016	16/12/2016	9	25-11-16	16-12-16	
5	R.P. of Grating							
6	Y by Konings method							
7	Explanation : e/m Thomsons method	3	23/12/2016	23/12/2016	3	23-12-16	23-12-16	
8	Temperature of flame							
9	Diffraction at cylindrical obstacal							
10	Experiments : e/m Thomsons method	9	30/12/2016	13/1/2017	9	30-12-16	19-1-17	
11	Temperature of flame							
12	Diffraction at cylindrical obstacal							
13	Explanation :Hysterisis curve for transformer	3	20/1/2017	20/1/2017	3	20-1-17	20-1-17	
14	Photovoltaic cell							
15	Experiments :Hysterisis curve for transformer	6	02/03/2017	02/10/2017	3	2-3-17	2-3-17	
16	Photovoltaic cell							
17	Revision	6	17/2/2017	24/2/2017	3			


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 H.O.D. Head
 of Physics
 Department
 Degloor College, Degloor
 Dist. Nanded


 Principal
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 A.V.E.S. Degloor College, Degloor
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		Expe. Period	Expected Duration		Actl. Periods	Actual Duration		
			From	To		From		To
	NAME OF EXPERIMENT							
1	Explanation : Calibration of spectrometer	3	16/11/2016	16/11/2016	3	16.12	16.12	
2	R.I. by Spectrometer							
3	i-d curve by spectrometer							
4	Experiments: of M.I. of flywheel	9	27/7/2016	08/09/2016	9	27.7.16	8.9.16	
5	g by Katers Pendulum							
6	Y- by Cantilever							
7	Explanation : n- by Torsional pendulum	3	16/8/2016	16/8/2016	3	16.8.16	16.8.16	
8	Y & n by Searle's method							
9	Thermal conductivity by Searle's method							
10	Experiments : n- by Torsional pendulum	9	23/8/2016	09/06/2016	9	23.8.16	9.6.16	
11	Y & n by Searle's method							
12	Thermal conductivity by Searle's method							
13	Explanation : S.T. by Fergusson method	3	13/9/2016	13/9/2016	3	13.9.	13.9	
14	Frequency of A.C. by sonometer							
15	Experiments : S.T. by Fergusson method							
16	Frequency of A.C. by sonometer	6	20/9/2016	27/9/2016	6	20.9.	20.9.	
17	Revision	3	10/05/2016	10/05/2016	3			


BSP
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 Dr. Narwade B.S.

BSP
 H.O. / Head
 Dept. of Physics
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[Signature]
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			From	To			From	To
	NAME OF EXPERIMENT							
1	Explanation : Photo transistor characteristics	3	17/11/2016	17/11/2016	3	17-11	17-11	
2	pi filter(full wave rectifier							
3	Transistorized regulated power supply							
4	Experiment : Photo transistor characteristics	9	24/11/2016	12/09/2016	9	24-11	11-12	
5	pi filter(full wave rectifier							
6	Transistorized regulated power supply							
7	Explanation : Op-Amp as Adder	3	15/12/2016	15/12/2016	3	15-12	15-12	
8	Op-Amp as Subtractor							
9	Hartely Oscillator							
10	Experiments: Op-Amp as Adder	9	29/12/2016	01/12/2017	9	29-12	10-1-17	
11	Op-Amp as Subtractor							
12	Hartely Oscillator							
13	Explanation :Phase shift oscillator	3	19/1/2017	19/1/2017	3	19-1-17	19-1-17	
14	Calibration by voltmeter by potentiometer							
15	Experiments :Phase shift oscillator	6	02/02/2017	02/09/2017	6	2-2-17	2-2-17	
16	Calibration by voltmeter by potentiometer							
17	Revision	6	16/2/2017	23/2/2017	6	-	-	


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 H.O.D.
 Dept. of Physics
 Degloor College, Degloor
 Dist. Nanded.


 Principal
 Degloor College
 A.V.E.S. Degloor College, Degloor
 Dist. Nanded (M.S.)