NBGSM College
Lesson Plan July 2019- Nov 2019

Name of assistant Professor :	**Anubha Rajput**
Class :	B.sc
Semester:	1
Subject:(PHYSICS)	**ELECTRICITY AND MAGNETISM**

	Day	Date	Topic
1st Week	1	16-Jul-19	Introduction of unit 1 (Mathematical Background,Electrostatic Field)
	2	17-Jul-19	Scalars and Vectors
	3	18-Jul-19	Dot and cross product
	4	19-Jul-19	Triple vector product
	5	20-Jul-19	Scalar and Vector fields
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Differentiation of a vector
	2	23-Jul-19	Gradient of a scalar
	3	24-Jul-19	Physical significance of gradient of a scalar
	4	25-Jul-19	line integral
	5	26-Jul-19	Physical significance of line integral
	6	27-Jul-19	Surface Integral
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	Physical significance of Surface integral
	2	30-Jul-19	Volume Integral
	3	31-Jul-19	**Holiday**
	4	1-Aug-19	Physical significance of Volume integral
	5	2-Aug-19	Gauss's divergence theorem
	6	3-Aug-19	Stocks theorem
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	Revision of above topics
	2	6-Aug-19	Derivation of field E from potential as gradient
	3	7-Aug-19	Derivation of Laplace equations
	4	8-Aug-19	Derivation of Poisson equations
	5	9-Aug-19	Elecotric flux
	6	10-Aug-19	Gauss's Law
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	**Holiday**
	2	13-Aug-19	Application to spherical shell
	3	14-Aug-19	Application to uniformly charged infinite plane
	4	15-Aug-19	**Holiday**
	5	16-Aug-19	Application to uniformity charged straight wire
	6	17-Aug-19	Mechanical force of charged surface
	Sunday	18-Aug-19	
6th week	1	19-Aug-19	Energy per unit volume
	2	20-Aug-19	Numeicals based on Unit 1
	3	21-Aug-19	Numeicals based on Unit 1
	4	22-Aug-19	Revision of Unit 1
	5	23-Aug-19	Class test of Unit 1
	6	24-Aug-19	**Holiday**
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Introduction of Unit 2 (Magnetostatistics)
	2	27-Aug-19	Magnetic Induction
	3	28-Aug-19	Magetic flux

	4	29-Aug-19	Solenoidal nature of Vector field of induction
	5	30-Aug-19	Properties of B
	6	31-Aug-19	Electronic theory of dia magnatism
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Electronic theory of para magnetism (Langevin's theory)
	2	3-Sep-19	Domain theory of ferromagnetism
	3	4-Sep-19	Cycle of Magnetisation
	4	5-Sep-19	Hysteresis (Energy dissipation)
	5	6-Sep-19	Hysteresis(Hysteresis loss)
	6	7-Sep-19	Hysteresis importance of Hysteresis curve)
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Numericals based on Unit 2
	2	10-Sep-19	Numericals based on Unit 2
	3	11-Sep-19	Revision of Unit 2
	4	12-Sep-19	Class test of Unit 2
	5	13-Sep-19	Introduction of Unit 3 (Electromagnetic Theory)
	6	14-Sep-19	Maxwell equation and their derivations
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Maxwell equation and their derivations
	2	17-Sep-19	Displacement Current
	3	18-Sep-19	Vector potentials
	4	19-Sep-19	Scalar potentials
	5	20-Sep-19	Revision of above topics
	6	21-Sep-19	Revision of above topics
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	**Holiday**
	2	24-Sep-19	Numericals based on Unit 1
	3	25-Sep-19	Numericals based on Unit 1
	4	26-Sep-19	Numericals based on Unit 1
	5	27-Sep-19	Numericals based on Unit 2
	6	28-Sep-19	Numericals based on Unit 2
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Boundary conditions
	2	1-Oct-19	Boundary conditions
	3	2-Oct-19	**Holiday**
	4	3-Oct-19	Interface between two different media
	5	4-Oct-19	Interface between two different media
	6	5-Oct-19	Interface between two different media
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Revision of Unit 1
	2	8-Oct-19	**Holiday**
	3	9-Oct-19	Revision of Unit 1
	4	10-Oct-19	Revision of Unit 1
	5	11-Oct-19	Revision of Unit 1
	6	12-Oct-19	Revision of Unit 1
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Propagation of electromagnetic wave
	2	15-Oct-19	Propagation of electromagnetic wave
	3	16-Oct-19	Propagation of electromagnetic wave
	4	17-Oct-19	**Holiday**
	5	18-Oct-19	Poynting vector
	6	19-Oct-19	Poynting vector
	Sunday	20-Oct-19	

15th week	1	21-Oct-19	Poynting theorem
	2	22-Oct-19	Poynting theorem
	3	23-Oct-19	Revision of Unit 3
	4	24-Oct-19	Diwali Vacations
	5	25-Oct-19	Diwali Vacations
	6	26-Oct-19	Diwali Vacations
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	Diwali Vacations
	2	29-Oct-19	Diwali Vacations
	3	30-Oct-19	Diwali Vacations
	4	31-Oct-19	Numericals based on Unit 3
	5	1-Nov-19	**Holiday**
	6	2-Nov-19	Numericals based on Unit 3
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Class test of Unit 3
	2	5-Nov-19	Revision of Unit 1
	3	6-Nov-19	Revision of Unit 1
	4	7-Nov-19	Revision of Unit 2
	5	8-Nov-19	Revision of Unit 2
	6	9-Nov-19	Revision of Unit 3
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Revision of Unit 3
	2	12-Nov-19	Important questions discussion for Unit 1
	3	13-Nov-19	Important questions discussion for Unit 1
	4	14-Nov-19	Important questions discussion for Unit 2
	5	15-Nov-19	Important questions discussion for Unit 3
	6	16-Nov-19	Important questions discussion for Unit 3
	Sunday	17-Nov-19	
Name of assistant Professor :	Anubha Rajput		
Class :	B.Sc 2		
Semester:	3		
Subject:(PHYSICS)	**Optics – I**		
	Day	**Date**	**Topic**
1st Week	1	16-Jul-19	Introduction of Unit 1(Fourier Analysis)
	2	17-Jul-19	Speed of transverse waves on a uniform string
	3	18-Jul-19	Speed of transverse waves on a uniform string
	4	19-Jul-19	Speed of longitudinal waves in a fluid
	5	20-Jul-19	Speed of longitudinal waves in a fluid
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Superposition of waves
	2	23-Jul-19	Superposition of waves
	3	24-Jul-19	Fourier Analysis of complex waves
	4	25-Jul-19	Fourier Analysis of complex waves
	5	26-Jul-19	Application of Fourier Analysis (Triangular waves)
	6	27-Jul-19	Application of Fourier Analysis (Rectangular waves)
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	Application of Fourier Analysis (Half wave rectifier out puts)
	2	30-Jul-19	Application of Fourier Analysis (Full wave rectifier out puts)
	3	31-Jul-19	**Holiday**
	4	1-Aug-19	Application of Fourier Analysis
	5	2-Aug-19	Application of Fourier Analysis
	6	3-Aug-19	Fourier transforms

	Sunday	4-Aug-19	
4th week	1	5-Aug-19	Fourier transforms
	2	6-Aug-19	Properties of Fourier transforms
	3	7-Aug-19	Properties of Fourier transforms
	4	8-Aug-19	Properties of Fourier transforms
	5	9-Aug-19	Application of fourier transform(f(x) = e-x2/2)
	6	10-Aug-19	Application of fourier transform(f(x) = e-x2/2I [x] <a,0 [x] >a)
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	**Holiday**
	2	13-Aug-19	Revision of unit 1
	3	14-Aug-19	Numericals based on unit 1
	4	15-Aug-19	**Holiday**
	5	16-Aug-19	Numericals based on unit 1
	6	17-Aug-19	Numericals based on unit 1
	Sunday	18-Aug-19	
6th week	1	19-Aug-19	Class test of Unit 1
	2	20-Aug-19	Introduction of unit 2(Geometrical Optics)
	3	21-Aug-19	Matrix methods in paraxial optics
	4	22-Aug-19	Matrix methods in paraxial optics
	5	23-Aug-19	Revision of Unit 1
	6	24-Aug-19	**Holiday**
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Effects of translation
	2	27-Aug-19	Effects of Refraction
	3	28-Aug-19	Derivation of thin lens lens formulae
	4	29-Aug-19	Derivation of thin thick lens formulae
	5	30-Aug-19	Derivation of thick lens formulae
	6	31-Aug-19	Derivation of thick lens formulae
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Unit plane
	2	3-Sep-19	Nodal planes
	3	4-Sep-19	System of thin lenses
	4	5-Sep-19	System of thin lenses
	5	6-Sep-19	Chromatic
	6	7-Sep-19	Chromatic
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Spherical coma
	2	10-Sep-19	Astigmatism
	3	11-Sep-19	Distortion aberrations
	4	12-Sep-19	Remedies of Distortion aberrations
	5	13-Sep-19	Remedies of Distortion aberrations
	6	14-Sep-19	Numericals based on Unit 2
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Numericals based on Unit 2
	2	17-Sep-19	Numericals based on Unit 2
	3	18-Sep-19	Revision of Unit 2
	4	19-Sep-19	Revision of Unit 2
	5	20-Sep-19	Revision of Unit 2
	6	21-Sep-19	Class test of Unit 2
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	**Holiday**
	2	24-Sep-19	Introduction of unit 3 (Interference)

	3	25-Sep-19	Types of Intereference
	4	26-Sep-19	Iterference by Division of Wavefront
	5	27-Sep-19	Iterference by Division of Wavefront
	6	28-Sep-19	Fresnel's Biprism
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Fresnel's Biprism
	2	1-Oct-19	Applications to determination of wave length of sodium light
	3	2-Oct-19	**Holiday**
	4	3-Oct-19	Applications to determination of wave length of sodium light
	5	4-Oct-19	Thickness of a mica sheet
	6	5-Oct-19	Thickness of a mica sheet
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Lioyd's mirror
	2	8-Oct-19	**Holiday**
	3	9-Oct-19	Lioyd's mirror
	4	10-Oct-19	Lioyd's mirror
	5	11-Oct-19	Phase change on reflection
	6	12-Oct-19	Phase change on reflection
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Revision of unit 3
	2	15-Oct-19	Revision of unit 3
	3	16-Oct-19	Revision of unit 3
	4	17-Oct-19	**Holiday**
	5	18-Oct-19	Numericals based on Unit 3
	6	19-Oct-19	Numericals based on Unit 3
	Sunday	20-Oct-19	
15th week	1	21-Oct-19	Numericals based on Unit 3
	2	22-Oct-19	Class test of Unit 3
	3	23-Oct-19	Revision of unit 1
	4	24-Oct-19	Diwali Vacations
	5	25-Oct-19	Diwali Vacations
	6	26-Oct-19	Diwali Vacations
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	Diwali Vacations
	2	29-Oct-19	Diwali Vacations
	3	30-Oct-19	Diwali Vacations
	4	31-Oct-19	Important Question discussion of Unit 1
	5	1-Nov-19	**Holiday**
	6	2-Nov-19	Important Question discussion of Unit 2
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Important Question discussion of Unit 2
	2	5-Nov-19	Important Question discussion of Unit 3
	3	6-Nov-19	Important Question discussion of Unit 3
	4	7-Nov-19	Revision of unit 1
	5	8-Nov-19	3 Hours test of Unit 1
	6	9-Nov-19	Discussion of marks
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Revision of unit 2
	2	12-Nov-19	3 Hours test of Unit 2
	3	13-Nov-19	Discussion of marks
	4	14-Nov-19	Revision of unit 3
	5	15-Nov-19	3 Hours test of Unit 3
	6	16-Nov-19	Discussion of marks
	Sunday	17-Nov-19	

			Topic
Name of assistant Professor :	**Anubha Rajput**		
Class :	B.sc 3		
Semester:	5		
Subject:(PHYSICS)	**QUANTUM MECHANICS**		
	Day	**Date**	
1st Week	1	16-Jul-19	Introduction of Quantum Mechainsm
	2	17-Jul-19	Introduction of unit 1
	3	18-Jul-19	Failure of (Classical) E.M. Theory
	4	19-Jul-19	Quantum theory of radiatio (old quantum theory)
	5	20-Jul-19	Quantum theory of radiatio (old quantum theory)
	Sunday	21-Jul-19	
2nd Week	1	22-Jul-19	Photon
	2	23-Jul-19	Photoelectric effect
	3	24-Jul-19	Photoelectric effect
	4	25-Jul-19	**Holiday**
	5	26-Jul-19	Einsteins photoelectric equation
	6	27-Jul-19	Einsteins photoelectric equation
	Sunday	28-Jul-19	
3rd week	1	29-Jul-19	Compton effect (theory and result)
	2	30-Jul-19	Compton effect (theory and result)
	3	31-Jul-19	Compton effect (theory and result)
	4	1-Aug-19	Compton effect (theory and result)
	5	2-Aug-19	Inadequancy of old quantum theory
	6	3-Aug-19	De-Broglie hypothesis
	Sunday	4-Aug-19	
4th week	1	5-Aug-19	De-Broglie hypothesis
	2	6-Aug-19	**Holiday**
	3	7-Aug-19	Davisson and Germer experiment
	4	8-Aug-19	Davisson and Germer experiment
	5	9-Aug-19	**Holiday**
	6	10-Aug-19	G.P. Thomson experiment
	Sunday	11-Aug-19	
5th week	1	12-Aug-19	G.P. Thomson experiment
	2	13-Aug-19	Phase velocity group velocity
	3	14-Aug-19	Phase velocity group velocity
	4	15-Aug-19	Heisenberg's uncertainty principle
	5	16-Aug-19	Heisenberg's uncertainty principle
	6	17-Aug-19	Time-energy and angular momentum
	Sunday	18-Aug-19	**Holiday**
6th week	1	19-Aug-19	Time-energy and angular momentum
	2	20-Aug-19	position uncertainty
	3	21-Aug-19	Position uncertainty
	4	22-Aug-19	Uncertainty principle from de-Broglie wave
	5	23-Aug-19	Uncertainty principle from de-Broglie wave
	6	24-Aug-19	Uncertainty principle from de-Broglie wave
	Sunday	25-Aug-19	
7th week	1	26-Aug-19	Uncertainty principle from de-Broglie wave
	2	27-Aug-19	Gamma Ray Maciroscope
	3	28-Aug-19	Gamma Ray Maciroscope
	4	29-Aug-19	Electron diffraction from a slit
	5	30-Aug-19	Numericals based on Unit 1

	6	31-Aug-19	Numericals based on Unit 1
	Sunday	1-Sep-19	
8th week	1	2-Sep-19	Revision of unit 1
	2	3-Sep-19	Revision of unit 1
	3	4-Sep-19	Introduction of Unit 2
	4	5-Sep-19	Derivation of time dependent Schrodinger wave equation
	5	6-Sep-19	Eigen values
	6	7-Sep-19	Eigen values
	Sunday	8-Sep-19	
9th week	1	9-Sep-19	Eigen functions
	2	10-Sep-19	Wave functions
	3	11-Sep-19	Wave functions and its significance.
	4	12-Sep-19	Normalization of wave function
	5	13-Sep-19	Class test of Unit 1
	6	14-Sep-19	Concept of observable
	Sunday	15-Sep-19	
10th week	1	16-Sep-19	Concept of operator
	2	17-Sep-19	**Holiday**
	3	18-Sep-19	Solution of Schrodinger equation for harmomic oscillator
	4	19-Sep-19	Solution of Schrodinger equation for harmomic oscillator
	5	20-Sep-19	Ground states
	6	21-Sep-19	Excited states
	Sunday	22-Sep-19	
11th week	1	23-Sep-19	Revision of unit 2
	2	24-Sep-19	Revision of unit 2
	3	25-Sep-19	Numericals of Unit 2
	4	26-Sep-19	**Holiday**
	5	27-Sep-19	Numericals of Unit 2
	6	28-Sep-19	Numericals of Unit 2
	Sunday	29-Sep-19	
12th week	1	30-Sep-19	Class test of unit 2
	2	1-Oct-19	Introduction of unit 3
	3	2-Oct-19	**Holiday**
	4	3-Oct-19	Application of Schrodinger equation
	5	4-Oct-19	Free particle in one dimensional box
	6	5-Oct-19	Free particle in one dimensional box
	Sunday	6-Oct-19	
13th week	1	7-Oct-19	Solution of schrodinger wave equation
	2	8-Oct-19	Eigen function
	3	9-Oct-19	Eigen values
	4	10-Oct-19	Quantization of energy and momentum,
	5	11-Oct-19	**Holiday**
	6	12-Oct-19	Quantization of energy and momentum,
	Sunday	13-Oct-19	
14th week	1	14-Oct-19	Nodes and antinodes
	2	15-Oct-19	Nodes and antinodes
	3	16-Oct-19	Zero point energy
	4	17-Oct-19	One-dimensional potential barrie E>V0
	5	18-Oct-19	Reflection and Transmission coefficient
	6	19-Oct-19	One-dimensional potential barrier, E>V0
	Sunday	20-Oct-19	
15th week	1	21-Oct-19	Reflection Coefficient

	2	22-Oct-19	Penetration of leakage
	3	23-Oct-19	Coefficient
	4	24-Oct-19	Diwali Vacations
	5	25-Oct-19	Diwali Vacations
	6	26-Oct-19	**Holiday**
	Sunday	27-Oct-19	
16th week	1	28-Oct-19	Diwali Vacations
	2	29-Oct-19	Diwali Vacations
	3	30-Oct-19	Diwali Vacations
	4	31-Oct-19	Numericals based on Unit 3
	5	1-Nov-19	Numericals based on Unit 3
	6	2-Nov-19	Numericals based on Unit 3
	Sunday	3-Nov-19	
17th week	1	4-Nov-19	Class test of Unit 3
	2	5-Nov-19	Important discussion of Unit 1
	3	6-Nov-19	3 Hours Clas test of Unit 1
	4	7-Nov-19	Marks discussion of Unit 1
	5	8-Nov-19	Important discussion of Unit 2
	6	9-Nov-19	3 Hours Clas test of Unit 2
	Sunday	10-Nov-19	
18th week	1	11-Nov-19	Marks discussion of Unit 2
	2	12-Nov-19	**Topic**
	3	13-Nov-19	Important discussion of Unit 3
	4	14-Nov-19	3 Hours Clas test of Unit 3
	5	15-Nov-19	3 Hours Clas test of Unit 3
	6	16-Nov-19	Revision
	Sunday	17-Nov-19	

