LESSON PLAN

BSc I year

1. Outline learning objective
2. Develop the introduction
3. Plan the main body of the lesson
4. Plan to check for understanding
5. Develop a conclusion and a preview
6. Create realistic timeline

PAPER - I
ALGEBRA AND TRIGONOMETRY

UNIT-1

S. No.	Topic	No. of periods needed	Teaching Method	Lesson plan
1.	Elementary operation on matrices	7	Animation, ppt-presentation, black board	1. Questions based on previous knowledge 2. **Synopsis**: Inverse of matrix ,linear independanc of row and column ,row rank , column,and rank,and equivalence of column and row rank 3. Homework after each class
2.	Eigenvalues,and eigenvectors and characterisitc	7	Black board, ppt presentation	1. Questions knowledge 2. **Synopsis**: a) Cayley hamiltion theorem b) And its in use in finding inverse

				of a matrix
				3. Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
	UNIT-2			
1.	Application of matrices	5	Black board, ppt presentation ,	1. **Specific objective**: to clear the concept of matrix 2. Questions based on previous knowledge 3. **Synopsis**: a) Homogeneous and nonhomogeneous b) Theorem on consistency of a system of liner equation 4. Homework after each class
2.	Relation between the root and coefficients	6	Black board, ppt presentation ,	1. **Specific objective**: to clear the concept of relation 2. Questions based on previous knowledge 3. **Synopsis**: a) General polynomial equation in one variable b) Types: Benign and malignant 4. Homework after each class
3.	Descarle Rule and Cardons method	6	Black board, ppt presentation	1. **Specific objective**: to clear the concept of descarte and cardons method 2. Questions based on previous knowledge

				3. Synopsis: a) Biquadratic equation **4.** Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
	UNIT-3			
1.	Mapping Equivalence relation	6	Black board, ppt presentation	**1. Specific objective**: to clear the concept of mapping **2.** Questions based on previous knowledge **3. Synopsis** **4.** Homework after each class
2.	Group theory	6	Black board, ppt presentation	**1. Specific objective**: to clear the concept of group **2.** Questions based on previous knowledge **3. Synopsis**: a) Introduction of group b) Congruence modulo n c) Geoup of properties d) Subgroup generation of group e) Type of group **4.** Homework after each class
3.	Lagrange theorem and Euler theorem	5	Black board, ppt presentation	**1. Specific objective**: to clear the concept of lagrange and euler theorem **2.** Questions based on previous knowledg **3.** Homework after each class
4.	Permutions	5	Black board, ppt	**1.** Questions based on previous knowledge **2. Synopsis**: a) Introduction of permuations b) Even and odd permutions **3.** Homework after each class

	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
	UNIT-4			
1.	Homomorphism and Isomorphism	6	Black board, ppt presentatio n	**1. Specific objective**: To clear the concept of homomorphism and isomomorphism **2.** Questions based on previous knowledge **3. Synopsis**: a) Introduction of homomorphism and isomorphism **4.** Homework after each class
2.	Ring theory	4	Black board, ppt presentatio n,	**1. Specific objective**: To clear the concept of ring **2.** Questions based on previous knowledge **3. Synopsis**: a) Introduction of ring and properties **4.** Homework after each class
3.	Integeal domain and fields	4	Black board, ppt presentatio n,	**1. Specific objective**: To clear the concept of domain and fields **2.** Questions based on previous knowledge **3. Synopsis**: **a)** Characteristic of a ring and field **4.** Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
	Unit-5			
1.	De-Moivers theorem	6	Black board, ppt presentatio n,	**1. Specific objective**: To clear the concept of de –moivre **2.** Questions based on previous knowledge

				3. **Synopsis**:
				   a) Introduction of de-moivers and its application
				   b) Hyperbolic funcation
				
				4. Homework after each class

2.	Logarithm of a complex quantity	4	Black board, ppt presentation,	1. Questions based on previous knowledge 2. Homework after each class
3.	Gregorys series ,summation of series	4	Black board, ppt presentation,	1. **Specific objective**: To clear the concept of Gregory and summation 2. Questions based on previous knowledge 3. Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			

UNIT-1

S. No.	To pic	No. of perio ds need ed	Teaching Method	Lesson plan

1.	Continuous and Discontinuties funcation	7	Animation, ppt-presentation , black board	**Specific objective**: to clear the concept of continuous and discontinuous
				    Questions based on previous knowledge
				Synopsis:
				    Definition of continuous and discontinuities
				
				    Basic properties of limits
				    And classification of discontinuies ,differentiability, successive
				    Homework after each class

2.	Leibnitz theorem	2	Black board, ppt presentation	**Specific objective**: to clear the concept of Leibnitz theorem
				    Questions based on previous knowledge
				Synopsis:
				    Definition of Leibnitz theorem and exmple
				
				Homework after each class

3.	Maclaurin and Taylor series	5	ppt-presentation Black-board	**Specific objective**: to clear the maclaurin and taylor Questions based on previous knowledge **Synopsis**: Homework after each class

	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
	UNIT-2			
1.	Asymptotes	2	Black board, ppt presentation	**Specific objective**: to clear the concept of asymptotes Questions based on previous knowledge Homework after each class

2.	Curvature	2	Black board, ppt presentation	**Specific objective**: to clear the concept of curvature
				    Questions based on previous knowledge
				Synopsis:
				    Definition
				    Types on the basis of need
				
				Homework after each class

3.	Tests for concavity and convexity	2	Black board, ppt presentation	**Specific objective**: to clear the concept concavity and convexity
				    Questions based on previous knowledge
				Synopsis:
				    Definition and
				
				Homework after each class

4.	Points of inflexion ,Multiple points	2	PPT, Black board	**Specific objective**: to clear the concept of infiexion
				    Questions based on previous knowledge
				Synopsis:
				    Definition and problem
				
				Homework after each class

5.	Tracing of curves Cartesian and polar coordinates	4	PPT, Black board	**Specific objective**: to clear the concept of curves .
				    Questions based on previous knowledge
				Synopsis:
				    Definition and problem

				Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
UNIT-3				
1.	Integration of Transcendental funcation	4	Black board, ppt presentation	Questions based on previous Homework after each class
2.	Reduction formula	2	Black board, ppt presentation	Questions based on previous knowledge **Synopsis**: Homework after each class
3.	Integrals Quadrature Rectification.	2	Black board, ppt presentation	Questions based on previous knowledge **Synopsis**: Volumes and surfaces of solids of revolution Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions			
UNIT-4				
1.	Differential Equation .	7	Black board, ppt presentation	**Specific objective**: to clear the concept of Differential equation Questions based on previous knowledge **Synopsis**: Definition of differential equation Degree and order First order higher degree equations Clairauts from and singular solution Geometrical meaning of a differential equation Homework after each class
2.	Linear differential equation with constant coefficients [first order]	6	Black board, ppt presentatio	**Specific objective**: to clear the concept of linear differential equation

			n
			Questions based on previous knowledge **Synopsis**: Homogeneous linear ordinary differential equation Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions		
	Unit-5		
1.	Linear differential equation of second order	6	Black board, ppt presentation	**Specific objective**: to clear the concept of second order lineae differential equation Questions based on previous knowledge **Synopsis**: Changing the dependent variable and independent variable Homework after each class
2.	Parameters	2	Black board, ppt presentation	**Specific objective**: to clear the concept of Parameters . Questions based on previous knowledge **Synopsis**: Definition of parameters Homework after each class
3.	Ordinary Simultaneous differential equation	2	Black board, ppt presentation	**Specific objective**: to clear the concept of simultaneous equation Questions based on previous knowledge Homework after each class
	Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions		

LESSON PLAN

MATHEMATICS
PAPER -III (paper code -)
(VECTOR ANALYSIS AND GEOMETRY)

<table>
<tr><td colspan="5" align="center">UNIT-1</td></tr>
<tr>
<td>S. No.</td>
<td>Topic</td>
<td>No. of periods needed</td>
<td>Teaching Method</td>
<td>Lesson plan</td>
</tr>
<tr>
<td>1.</td>
<td>Scalar and Vector product of three vectors .</td>
<td>4</td>
<td>, ppt-presentation, black board</td>
<td>1. Specific objective: to clear the concept of scalar and vector
2. Questions based on previous knowledge
3. Synopsis:
  a) Product of four vectors
  b) Reciprocal Vector

4.   Homework after each class</td>
</tr>
<tr>
<td>2.</td>
<td>Gradient , Divergence and Curl</td>
<td>8</td>
<td>Black board, ppt presentation,</td>
<td>1. Specific objective: to clear the concept of Gradient , divergence and curl
2. Questions based on previous knowledge
3. Homework after each class</td>
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<tr>
<td colspan="5">Assessment of understanding:
   1. Unit test for 20 marks: subjective/objective/oral
   2. Group discussions
   3. Class room quiz competitions</td>
</tr>
<tr><td colspan="5" align="center">UNIT-2</td></tr>
<tr>
<td>1.</td>
<td>Vector integration ,and Gauss theorem</td>
<td>6</td>
<td>, ppt-presentations Black-board</td>
<td>1. Specific objective: to clear the concept of Gauss theorem
2. Questions based on previous</td>
</tr>
</table>

			(whenever needed)	knowledge
				3. Homework after each class
2.	Green and Stokes theorem	8	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of Green and Stokes theorem 2. Questions based on previous knowledge
				3. Homework after each class
	.			

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

		UNIT-3		
1.	General equation of second degree	2	ppt-presentations Black-board (whenever needed)	1. Questions based on previous knowledge 2. Homework after each class
2.	Tracing of conics ,System of conics	5	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of tracing of conics 2. Questions based on previous knowledge 3. Homework after each class
3.	Confocal ,Polar Equation of a Conic	5	, ppt-presentations Black-board (whenever needed)	1. Questions based on previous knowledge 2. Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

		UNIT-4		

1.	Sphere	3	, ppt-presentations Black-board (whenever needed)	1. **Specific objective**: To clear the concept of Sphere. 2. Questions based on previous knowledge 3. Homework after each class
2.	Cone	3	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: To clear the concept of cone 2. Questions based on previous knowledge 3. Homework after each class
3.	Cylinder	3	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: To clear the concept of Cylinder 2. Questions based on previous knowledge 5. Homework after each class
.	.			

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

Unit-5				
1.	Central Conicoids ,Paraboloids	4	Ppt , presentations Black -board	1. **Specific objective**: To clear the concept of conicoids and paraboloids 2. Questions based on previous knowledge 5. Homework after each class
2.	Generating lines .	3	Ppt,presentations Black – board	1. **Specific objective**: To clear the concept of Generation line 2. Questions based on previous knowledge 3 Homework after each class
3.	Reduction of second degree equation	3	Ppt, presentations Black -board	1. **Specific objective**: To clear the concept of Reduction

				2. Questions based on previous knowledge
				5. Homework after each class
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Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

LESSON PLAN
BSC-II YEAR

1.Outline learining objective
2.Develop the introduction
3.plan the main body of the lesson
4.Develop a conclusion and a preview
5. plan to check the understanding
6.Create realistic timeline

PAPER - I (paper code -)
(ADVANCED CALCULUS)

<table>
<tr><td colspan="5" align="center">UNIT-1</td></tr>
<tr><td>S. No.</td><td>Topic</td><td>No. of perio ds need ed</td><td>Teaching Method</td><td>Lesson plan</td></tr>
<tr><td>1.</td><td>Sequences (Bounded and Monotonic)</td><td>2</td><td>, ppt-presentat ion, black board</td><td>Specific objective: to clear the concept of Bounded and Monotonic Sequences
Questions based on previous knowledge
Synopsis:
Definition of Sequences
Definition of Monotonic and Bounded Se.

Homework after each class</td></tr>
</table>

2.	Cauchy Convergence	3	Black board, ppt presentat ion	**Specific objective**: to clear the concept of Cauchy convergence Questions based on previous knowledge Homework after each class
3.	Test of Convergence (Comparison ,Cauchy Integral,Ratio,Raabes logarithmic,De-morgan and Bertrand)	10	ppt-presentat ions Black-board (whenev er needed)	**Specific objective**: to clear the concept of convergence Questions based on previous knowledge Homework after each class
4.	Alternating Series ,Leibnitz Theorem and Absolute and conditional convergence	8	ppt-presentat ion, black board	**Specific objective**: to clear the concept of Leibnitz and Absolute Questions based on previous knowledge Homework after each class
Assessment of understanding: 4. Unit test for 20 marks: subjective/objective/oral 5. Group discussions 6. Class room quiz competitions				
UNIT-2				
1.	Continuity, Uniform continuity and Chain rule	6	, ppt-presentatio ns Black-board (whenever needed)	**Specific objective**: to clear the concept of Chain rule Questions based on previous knowledge Homework after each class
2.	Mean Value theorem	2	ppt-presentatio ns Black-board (whenever needed)	**Specific objective**: to clear the concept of mean value theorem . Questions based on previous knowledge Homework after each class
3.	Darboux intermediate Value theorem	1	ppt-presentatio ns Black-board (whenever	**Specific objective**: to clear the concept of Darboux Questions based on previous knowledge

			needed)	
				Homework after each class
4.	Taylor Theorem	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Taylor theorem . Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

	UNIT-3			
1.	Limit and continuity function (two variables)	3	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of limit and continuity Questions based on previous knowledge. Homework after each class
2.	Partial differentiation . Change of variables	6	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of partial differentiation Questions based on previous knowledge Homework after each class
3.	Eulers Theorem on homogeneous funcation	3	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of homogeneous funcation Questions based on previous knowledge **Synopsis**: Diffination Eulers theorem and examples. Diffination homogeneous funcation Homework after each class

4.	Taylor theorem for function of two variables ,Jacobians	6	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Taylor theorem and Jacobians Questions based on previous knowledge Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. Group discussions 3. Class room quiz competitions				
UNIT-4				
1.	Envelopes	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Envelopes Questions based on previous knowledge Homework after each class
2.	Evolutes	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Evolutes Questions based on previous knowledge Homework after each class
3.	Maxima ,Minima And Saddle points of function .	8	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Maxima ,minima and saddle point . Questions based on previous knowledge Homework after each class
4.	Lagrange Multiplier Method	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Lagrange method Questions based on previous knowledge Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. Group discussions				

	3. Class room quiz competitions			
	Unit-5			
1.	Beta and Gamma function	5	PPT, Black board	**Specific objective**: to clear the concept of Beta And Gamma function Questions based on previous knowledge Homework after each class
2.	Double And Triple Integrals	2	PPT, Black board	**Specific objective**: to clear the concept of Double and Triple integrals Questions based on previous knowledge Homework after each class
3.	Dirichlet integrals	2	PPT, Black board	**Specific objective**: to clear the concept of Dirichet integrals Questions based on previous knowledge Homework after each class
4.	Change of order of integration in double integrals	2	PPT, Black board	**Specific objective**: to clear the concept of Change of order in double integrals Questions based on previous knowledge Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. Group discussions 3. Class room quiz competitions				

PAPER-II (Paper Code)
(DIFFERENTIAL EQUATIONS)

UNIT-1

S. No.	Topic	No. of periods needed	Teaching Method	Lesson plan
1.	Power Series Method	3	ppt-presentation, black board	**1. Specific objective**: to clear the concept of Power Series **2.** Questions based on previous knowledge **3.** Homework after each class
2.	Bessel And Legendre function and their properties	3	Black board, ppt presentation	1. **Specific objective**: introduction of Bessle and Legendre 2. Questions knowledge 3. Homework after each class
3.	Recurrence and Generating relations,	3	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Recurrence and generating relations **2.** Questions knowledge **3.** Homework after each class
4.	Sturm-Liouville Problem,Reality of eigen values	6	Black board, ppt presentation	**1. Specific objective**: to clear the concept of Sturm –Liouville **2.** Questions based on previous knowledge **3.** Homework after each class
5.	Orthogonality of Bessel functions and Legendre Polynomials	5	Black board, ppt presentation	**1. Specific objective**: to clear the concept of Orthogonality of Bessel functions **2.** Questions based on previous

				knowledge
				.
				3. Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. group discussions
  4. 3.class room quiz competitions

UNIT-2				
1.	Laplace Transformation(Derivatives and integrals)	3	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Laplace Tran. **2.** Questions based on previous knowledge **3.** Homework after each class
2.	Shifting theorem	3	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Shifting theorem **2.** Questions based on previous knowledge **3.** Homework after each class
3.	Convolution theorem	2	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Convolution theorem **2.** Questions based on previous knowledge **3.** Homework after each class
4.	Differential equation using the laplace transformation	2	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Di.Eq.in Lap.Tran. **2.** Questions based on previous knowledge **3.** Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

UNIT-3				
1.	PDE of the first order	5	ppt-presentations Black-board (whenever	**1. Specific objective**: to clear the concept of PDE **2.** Questions based on previous

				knowledge
				3. Homework after each class
2.	Lagrange Solution .Some Special types of equations	6	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Lagrange solution **2.** Questions based on previous knowledge **3.** Homework after each class
3.	Charpit general method of Solution	4	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of Charpit general method **2.** Questions based on previous knowledge **3.** Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

UNIT-4				
1.	PDE of Second And higher orders	3	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of PDE S.AND higher order **2.** Questions based on previous knowledge **3.** Homework after each class
2.	Homogencous And non-homogencous equation with constant cofficients	5	ppt-presentations Black-board (whenever needed)	**1. Specific objective**: to clear the concept of HO.AND NON-HO. **2.** Questions based on previous knowledge **3.** Homework after each class
3.	Monges Methods	4	ppt-presentations Black-board (whenever needed)	**1.** Questions based on previous knowledge **2.** Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions

3. Class room quiz competitions				
Unit-5				
1.	Calculus of Variations(Vari.P .with fixed Boun.)	4	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of Calculus Variations 2. Questions based on previous knowledge 3. Homework after each class
2.	Euler equation for functionals Containing first order (one independent variable)	4	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of Euler equation 2. Questions based on previous knowledge 3. Homework after each class
3.	Jacobi and Legendre Conditions	4	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of Jacobi and Legendre 2. Questions based on previous knowledge 3. Homework after each class
4.	Second Variation .(V.P.OF least action)	2	ppt-presentations Black-board (whenever needed)	1. **Specific objective**: to clear the concept of Second Variation 2. Questions based on previous knowledge 3. Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions				

PAPER-III (Paper Code-0917)

(MECHANICS)

UNIT-1

S. No.	Topic	No. of periods needed	Teaching Method	Lesson plan
1.	Analytical Conditions of Equilibrium	6	Black board, ppt presentation	**Specific objective**: to clear the concept of Analytical Conditions of Equilibrium Questions based on previous knowledge Homework after each class
2.	Stable and unstable equilibrium	3	Black board, ppt presentation	**Specific objective**: to clear the concept of Stable and unstable equilibrium . Questions based on previous knowledge Homework after each class
3.	Virtual .Catenary	5	Black board, ppt presentation	**Specific objective**: to clear the concept of Catenary Questions based on previous knowledge Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions **5.** 3.class room quiz competitions				
UNIT-2				

1.	Forces in three dimension	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Forces in three dimension
				
				    Questions based on previous
				    knowledge
				
				Homework after each class

2.	Poinsots Central axis	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Poinsots Central axis
				
				    Questions based on previous
				    knowledge
				
				Homework after each class

3.	Null lines and Planes	3	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Null lines and planes
				
				    Questions based on previous
				    knowledge
				
				Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

UNIT-3				
1.	Simple harmonic motion .	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Simple harmonic motion Questions based on previous knowledge Homework after each class
2.	Elastic Strings .	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Elastic Strings Questions based on previous knowledge Homework after each class
3.	Velocities and accelerations along radial and Transverse directions	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Velocities and accelerations Questions based on previous knowledge

				Homework after each class
4.	Projectile ,Central Orbits	4	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Projectile Central orbits Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

UNIT-4				
1.	Kepler laws of motion	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Kepler laws of motion Questions based on previous knowledge Homework after each class
2.	Velocities and acceleration in Tangential and normal direction	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of V and Acc. In t. Questions based on previous knowledge Homework after each class
3.	Motion on smooth and rough plane Curves	4	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Motion on Smooth and rough plane Curves Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

Unit-5				
1.	Motion in a resisting ,medium ,motion of particles of varying mass.	4	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Motion Questions based on previous knowledge Homework after each class

2.	Motion of a particle in three dimensions	5	ppt- presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Motion in three dimensions Questions based on previous knowledge Homework after each class
3.	Acceleration in terms of different co-ordinate systems	5	ppt- presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of acceleration Questions based on previous knowledge Homework after each class
Assessment of understanding: 1. Unit test for 20 marks: subjective/objective/oral 2. group discussions 3.class room quiz competitions				

2.	Elastic Strings .	2	ppt- presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Elastic Strings Questions based on previous knowledge Homework after each class
3.	Velocities and accelerations	5	ppt- presentations	**Specific objective**: to clear the concept of

			Black-board (whenever needed)	Velocities and accelerations Questions based on previous knowledge Homework after each class
4.	Projectile ,Central Orbits	4	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Projectile Central orbits Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

UNIT-4

1.	Kepler laws of motion	2	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Kepler laws of motion Questions based on previous knowledge Homework after each class
2.	Velocities and acceleration in Tangential and normal direction	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of V and Acc. In t. Questions based on previous knowledge Homework after each class
3.	Motion on smooth and rough plane Curves	4	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Motion on Smooth and rough plane Curves Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. Group discussions
3. Class room quiz competitions

Unit-5

1.	Motion in a resisting ,medium ,motion of particles of	4	ppt-presentations Black-board (whenever	**Specific objective**: to clear the concept of Motion Questions based on previous knowledge

	varying mass.		needed)	Homework after each class
2.	Motion of a particle in three dimensions	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of Motion in three dimensions Questions based on previous knowledge Homework after each class
3.	Acceleration in terms of different co-ordinate systems	5	ppt-presentations Black-board (whenever needed)	**Specific objective**: to clear the concept of acceleration Questions based on previous knowledge Homework after each class

Assessment of understanding:
1. Unit test for 20 marks: subjective/objective/oral
2. group discussions
3.class room quiz competitions