

Lesson Plan Format
18 weeks (From January 2018 to April 2018)

Name of Assistant /Associate Professor :.....Pamila Dahiya.....
 Class and Section :.....M.Sc. - IVth Sem......
 Subject :.....Classical Mechanics.....

Week 1(January 1-6)	
Chapter 1	
01/01/2018	Introduction of Moments of Inertia
02/01/2018	Def ⁿ of moments of Inertia
03/01/2018	Introduction of Products of Inertia
04/01/2018	Def ⁿ and examples of moments and product of inertia
05/01/2018	— do —
06/01/2017	Angular momentum of a rigid body
Week 2(January 8-13)	
Chapter	
08/01/2018	Principal axes and principal moment of inertia
09/01/2018	Moment of inertia of a rigid body
10/01/2018	Kinetic energy of a rigid body rotating about
11/01/2018	a fixed point and concept related to it.
12/01/2018	— do —
13/01/2018	Introduction of equimoment system
Week 3(January 15-20)	
Chapter	
15/01/2018	Def ⁿ of equimoment system and examples.
16/01/2018	Momental ellipsoid
17/01/2018	Coplanar mass distributions
18/01/2018	General motion of a rigid body
19/01/2018	— do —
19/01/2018	Assignment
20/01/2018	class Test
Week 4(January 22-27)	
Chapter	
22/01/2018	Vasant panchmi
23/01/2018	Revision of unit-I
24/01/2018	Sir Chhotu Ram Jayanti
25/01/2018	Introduction of Free and constrained system
26/01/2018	Republic Day

27/01/2018	Def ⁿ and Examples of free and constrained system
Week 5 (January 29- Feb 3)	
Chapter	
29/01/2018	Classification of constraints
30/01/2018	Introduction of Holonomic and non-Holonomic system
31/01/2018	Def ⁿ s and examples of above system
01/02/2018	Degree of freedom and generalized co-ordinates
02/02/2018	Virtual displacement and Virtual work
03/02/2018	Statement of principle of virtual work (PVW)
Week 6 (Feb 5-10)	
Chapter	
05/02/2018	Possible velocity and possible acceleration
06/02/2018	Introduction of Ideal constraints
07/02/2018	General eq. of dynamics for ideal constraints
08/02/2018	Lagrange's eq. of 1st kind
09/02/2018	D'Alembert principle
10/02/2018	Maharshi Dayanand Saraswati Jayanti
Week 7 (Feb 12-17)	
Chapter	
12/02/2017	Independent co-ordinates and generalized forces
13/02/2017	Maha - Shivratri
14/02/2017	Lagrange's eq. of 2nd kind
15/02/2017	Generalized velocities and accelerations
16/02/2017	Uniqueness of Sol.
17/02/2017	Variation of total energy of conservative forces.
Week 8 (Feb 19-24)	
Chapter	
19/02/2018	Lagrange variable, Lagrangian fun, Lagrange eq.
20/02/2018	Generalized momenta
21/02/2018	Test
22/02/2018	Introduction of Hamiltonian variable and fun.
23/02/2018	Dunkin theorem
24/02/2018	Ignorable co-ordinates
Week 9 (Feb 26-March 03)	
Chapter	
26/02/2018	Hamilton Canonical eqs
27/02/2018	Routh variable and function
28/02/2018	—
01/03/2018	—

02/03/2018	—
03/03/2018	—
Week 10(March 5-10)	
Chapter	
05/03/2018	Introduction of Routh eqs
06/03/2018	Introduction of Poisson Brackets
07/03/2018	Properties of Poisson Brackets
08/03/2018	Poisson identity
09/03/2018	Jacobi - Poisson theorem
10/03/2018	Introduction of Hamilton action and principle
Week 11(March 12-17)	
Chapter	
12/03/2018	Poincare - Carton integral invariant
13/03/2018	Whittaker eq.
14/03/2018	Jacobi eqs
15/03/2018	Lagrangian action
16/03/2018	Principle of least action
17/03/2018	
Week 12(March 19-24)	
Chapter	
19/03/2018	Test
20/03/2018	Introduction of canonical Transformation
21/03/2018	Necessary & sufficient condition for a canonical Transformation
22/03/2018	— do —
23/03/2018	Shorheedi Diwas
24/03/2018	Def ⁿ of univalent canonical transformation
Week 13(March 26-31)	
Chapter	
26/03/2018	Def ⁿ of Free canonical transformation
27/03/2018	Hamilton - Jacobi eq.
28/03/2018	Jacobi Theorem
29/03/2018	Mahavir Jayanti
30/03/2018	Method of separation of variable in HJ
31/03/2018	Lagrange Brackets
Week 14(April 02-07)	
Chapter	
02/04/2018	Nece. & Suff. condition of can. char. of transformation
03/04/2018	— do —
04/04/2018	Jacobian matrix of a canonical transformation

