

Koyana Education Society Patan
Balasaheb Desai College Patan
Monthly Teaching Plan
Year 2024-25

Department: Physics

Month: July 2024

B. Sc. I, P – II: electricity and Magnetism I

B. Sc. III, P – IX: Mathematical Physics and Classical Electrodynamics,

Name of the teacher: Dr. Mrs. Kumbhar Sneha Suyash

Class: B. Sc. I, B. Sc. II, B.Sc. Part – III

Class: B. Sc. I & B. Sc. III Practical

B. Sc. II, P – VI: Waves and optics – I

P – XI: Classical Mechanics

Date/Day	Time	Class	Unit/Sub-Unit	Teaching Methods/ ICT Used
01/07/2024 Monday	10.30-11.30	B.Sc. I P - II	Electricity and Magnetism I 1. Vector analysis Del operator	Lecture
	1.30-2.30	B.Sc. III P - IX	Mathematical Physics and Classical Electrodynamics UNIT I: 1. Orthogonal Curvilinear Co-ordinates: Introduction to Cartesian	Lecture
02/07/2024 Tuesday	9.30-10.30	B.Sc. II P - VI	Waves and optics – I Unit II: 1. Sound and Acoustics of Buildings Sound: Transducers and their characteristics	Lecture
	10.30-11.30	B.Sc. III	Practical	
	1.30-2.30	B.Sc. III P-IX	Spherical polar and cylindrical co-ordinate systems	Lecture
03/07/2024 Wednesday	12.30-1.30	B.Sc. I P – II	Gradient of a scalar field and its physical significance	Lecture
	2.30-3.30	B.Sc. III P – XI	UNIT-I 1. Lagrangian Formulation Constraints, Degrees of freedom	Lecture
04/07/2024 Thursday	10.30-1.30	B.Sc. III	Practical	
	2.30-3.30	B.Sc. III P - XI	Generalized coordinates	Lecture
05/07/2024 Friday	1.30	B.Sc. I	Practical	

08/07/2024 Monday	1030-11.30	B.Sc. I P - II	Divergence of vector field and its physical significance	Lecture
	1.30-2.30	B.Sc. III P - IX	Concept of orthogonal curvilinear co-ordinates	Lecture
09/07/2024 Tuesday	9.30-10.30	B.Sc. II P - VI	Pressure microphone	Lecture, YouTube
	10.30-1.30	B.Sc. III	Practical	
	1.30-2.30	B.Sc. III P - IX	Unit tangent vectors, Arc length, Area and Volume elements in orthogonal curvilinear co-ordinate system	Lecture
10/07/2024 Wednesday	12.30-1.30	B.Sc. I P - II	Curl of vector field	Lecture
	2.30-3.30	B.Sc. III P - XI	Principle of virtual work, D'Alembert's principle	Lecture
11/07/2024 Thursday	9.30-1.30	B.Sc. III	Practical	
	2.30-3.30	B.Sc. III P - XI	Lagrange's equation from D'Alembert's principle	Lecture
12/07/2024 Friday	1.30	B.Sc. I	Practical	
15/07/2024 Monday	10.30-11.30	B.Sc. I P - II	Line, surface and volume integral (definitions only)	Lecture
	1.30-2.30	B.Sc. III P - IX	Gradient, Divergence, Curl, Del and Laplacian in orthogonal curvilinear co-ordinate system,	Lecture
16/07/2024 Tuesday	9.30-10.30	B.Sc. II P - VI	Moving coil loudspeaker	Lecture, YouTube
	10.30-1.30	B.Sc. III	Practical	
	1.30-2.30	B.Sc. III P - IX	Extension of gradient, divergence, curl, del and Laplacian in Cartesian,	Lecture
18/07/2024 Thursday	9.30-1.30	B.Sc. III	Practical	
	2.30-3.30	B.Sc. III P - XI	Applications of Lagrange's equation to a particle in space	Lecture

19/07/2024 Friday	1.30	B.Sc. I	Practical	
20/07/2024 Saturday			DL	
22/07/2024 Monday	10.30-11.30	B.Sc. I P – II	Gauss divergence theorem and Stoke's theorem (statements only)	Lecture
	1.30-2.30	B.Sc. III P – IX	Extension of gradient, divergence, curl, del and Laplacian in Spherical polar	Lecture
23/07/2024 Tuesday	9.30-10.30	B.Sc. II P – VI	Intensity and loudness of sound, Decibels, Intensity levels	Lecture
	10.30-1.30	B.Sc. III	Practical	
	1.30-2.30	B.Sc. III P - IX	Extension of gradient, divergence, curl, del and Laplacian in Cylindrical coordinate systems.	Lecture
24/07/2024 Wednesday	12.30-1.30	B.Sc. I P – II	Revision of Vector analysis	Discussion & Brainstorming
	2.30-3.30	B.Sc. III P - XI	Applications of Lagrange's equation to Atwood's machine	Lecture
25/07/2024 Thursday	9.30-1.30	B.Sc. III	Practical	
	2.30-3.30	B.Sc. III P - XI	Applications of Lagrange's equation a bead sliding on uniformly rotating wire under force free condition	Lecture
26/07/2024 Friday	1.30	B.Sc. I	Practical	
29/07/2024 Monday	10.30-11.30	B.Sc. I P - II	2. Electrostatics Coulomb's law, Electrostatic field	Lecture
	1.30-2.30	B.Sc. III P - IX	Revision of Orthogonal Curvilinear Co-ordinates	Discussion
30/07/2024 Tuesday	9.30-10.30	B.Sc. II P – VI	Acoustics of buildings: Reverberation and time of reverberation	Lecture, YouTube
	10.30-1.30	B.Sc. II	Practical	

	1.30-2.30	B.Sc. III P - IX	2. Partial Differential Equation Introduction to differential equations	Lecture
31/07/2024 Wednesday	12.30-1.30	B.Sc. I P - II	electric flux, Gauss's theorem of electrostatics	Lecture, YouTube
	2.30-3.30	B.Sc. III P - XI	Revision of Lagrangian formulation	Lecture

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(Dr. S. S. Kumbhar)


Head of the
Physics Department