

Syllabus distribution of Physics (Hons and General)

1. Honours

SEM I		
Paper	Topic	Teacher
C1	Calculus ,Dirac Delta function and its properties	TG
	Vector Calculus, Orthogonal Curvilinear Coordinates:	UD
C2	Fundamentals of Dynamics Work and Energy, Collisions:Rotational Dynamics	SM
	Gravitation and Central Force Motion, Elasticity, Fluid Motion	SP
	Non-Inertial Systems, Special Theory of Relativity, Oscillation	SS
GE 1	Planck's Quantum, Problems with Rutherford model, Position measurement, Two slit interference experiment, One Dimensional infinitely Rigid Box, Size and structure of atomic nucleus and its relation with atomic weight, Radioactivity, Fission and fusion	SM-TG
SEM III		
C3	MATHEMATICAL PHYSICS-II ,Fourier Series, Some Special Integrals, Theory of Errors.	SS
	Frobenius Method and Special Functions	SM
	Partial Differential Equations	UD
C4	Introduction to Thermodynamics ,Zeroth and First Law of Thermodynamics, Second Law of Thermodynamics, Entropy, Thermodynamic Potentials, Maxwell's Thermodynamic Relations	SP
	Kinetic Theory of Gases, Distribution of Velocities, Molecular Collisions, Real Gases,	UD
C5	DIGITAL SYSTEMS AND APPLICATIONS	TG
GE 3	Crystal Structure, Elementary Lattice Dynamics, Dielectric Properties of Materials, Elementary band theory, Superconductivity	UD+SP
SEM V		
C8	QUANTUM MECHANICS AND APPLICATIONS	SM TG
C9	SOLID STATE PHYSICS, Crystal Structure, Elementary Lattice Dynamics, Elementary band theory	UD
	Ferroelectric Properties of Materials, Dielectric Properties of Materials, Superconductivity:	SP
DSE 1	Classical Dynamics : Classical Mechanics of Point Particles	TG
	Small Amplitude Oscillations, Special Theory of Relativity	SS
	Fluid Dynamics	SP
DSE 2	Nuclear and Particle Physics: General Properties of Nuclei : Nuclear Models, Nuclear Reaction : Particle physics	UD
	Radioactive decay, interaction of nuclear radiation with matter, Detector for nuclear radiation, Particle accelerators	SS

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1/09/22