

Govt.College,Safidon(Jind)-126112

Session:2026-27(OddSemester)

Lesson Plan of BSC III

Name of theTeacher: Ms Reenu Devi

Subject: Modern Physics

Sr. No.		Month	Topic
		July	Overview,scaleofquantumphysics,boundarybetweenclassicalandquanOverview,scaleofquantumphysics, boundary between classical and quantum phenomena,Photon,Photoelectriceffect,Comptoneffect(theoryandresult),,de-Brogliehypothesis. . Phase velocity, group velocity and their relation. Heisenberg's uncertainty principle. Time energy and angular momentum, position uncertainty. Uncertainty principle de Broglie wave.(Wave-particle duality). Derivation of 1-D time dependent Schrodinger wave equation (subject to force, free particle). Time-independent Schrodinger wave equation eigenvalues,eigenfunctions,wavefunctions and its significance. Expectationvaluesofdynamicalquantities,probability current density, Freeparticleinone-dimensionalbox(solution of Schrodinger wave equation,eigenfunctions,eigenvalues.
		September	Crystalline state ,crystal lattice,translation vectors,miller indicescrytallographic plans ,interplaner spacing ,nacl, diffraction of waves,braggs law ,reciprocal lattice.
		October	Bohr model, sommerfeld model , larmor theorem, spin orbit interaction energy,LS and JJ coupling ,Zeeman effect ,Lande g Factor
		November	Compositin of nucleus ,stability of nucleus ,properties, magnetic moment ,nuclear size ,spin ,parity ,binding energy ,fundamental particles ,quark and lepton , hadron, baryon, meson ,nuclear interaction

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Lesson Plan of BscIII

Name of theTeacher:MsReenuDevi

Subject:PHYSICS (VOC)

Sr. No.		Month	Topic
		August	Food Preservation: Introduction, factors contributing to food spoilage, causes of food spoilage, methods of food preservation, freezing method of food preservation, preservation of food with direct contact of liquid N ₂ freeze drying, preservation of different products, cold storage and commercial cabinets
		September	Commercial Applications of air-conditioning: Introduction, airconditioning of houses, offices, hotels, restaurants, departmental stores, theatres, auditoriums, hospitals and medical stores.
		October	Ice-Manufacturing: Introduction, principles of ice production, different methods of ice manufacturing, treatment of water for making ice, brines, freezing tanks, ice cans, quality of ice.
		November	Industrial Applications of Refrigeration: Introduction, importance of relative humidity in different industries, ice-cream manufacturing, refrigeration for breweries, selection of refrigerant for breweries, use of liquid N ₂ or fabric, quality, air conditioning in textile and photographic Industries.

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Session:2026-27(OddSemester)

Lesson plan of BSC I

Name of the Teacher: Ms Reenu Devi

Subject:Mechanic

Sr. No.		Month	Topic
		August	Rigidbody, moment of inertia, theorem of perpendicular and parallel, moment of inertia of ring, disc, solid cylinder, Hollow sphere, rectangular plates, square plate, solid cone, triangular plate, torque, rotational kinetic energy, angular momentum, law of conservation of angular momentum, rolling motion, condition for pure rolling, acceleration of body rolling down inclined plane
		September	flying wheel, moment of inertia of irregular body, elasticity, deforming force, stress, strain and their types, Hooke's law, modulus of elasticity, relation between shear angle and angle of twist, determination of elastic constant for material of wire by Searle's method, unit test
		October	Special theory of relativity, Michelson's Morley experiment and its outcome, postulate of special theory, transformation, simultaneity and order of event, Lorentz contraction, time dilation, relativistic transformation of Velocity, Relativistic addition of velocities, variation of mass, energy equivalence, Gravitation and central motion Law of gravitation, potential and field due to spherical shell
		November	Two body problem and its reduction to one body problem and its solution, determination of g by means of pendulum, normal coordinates and normal modes, possible angular frequencies of oscillation of two identical simple pendulum of length, revision