# Govt.College,Safidon(Jind)-126112

Session:2025-26(OddSemester)

Lesson Plan of BSC III

 Name of theTeacher: MsReenuDevi Subject: Modern Physics

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| **Sr.****No.** |  | **Month** | **Topic** |
|  |  | AUGUST | 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).  |
|  |  | **September** | Time-independent Schrodinger wave equation eigenvalues,eigenfunctions,wavefunctions and its significance.Expectationvaluesofdynamicalquantities,probability current density, Freeparticleinone-dimensionalbox(solution of Schrodinger wave equation,eigenfunctions,eigenvalues. |
|  |  | October | Crystalline state ,crystal lattice,translation vectors,miller indicescrytallographic plans ,interplaner spacing ,nacl, diffraction of waves,braggs law ,reciprocal lattice. |
|  |  | **November** | Bohr model, sommerfeld model , larmor theorem, spin orbit interaction energy,LS and JJ coupling ,Zeeman effect ,Lande g Factor |

# Govt.College,Safidon(Jind)-126112

Session:2025-26(OddSemester)

Lesson Plan of MDC Physics (SEMIII)

NameoftheTeacher:MsReenuDevi Subject:PHYSICS

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| **Sr.****No.** |  | **Month** | **Topic** |
|  |  | AUGUST | Physics-Nature,scope&excitement,Majordiscoveriesinphysics,majorcontributionbyIndianPhysicists,Physicsinrelationto sciences, Impact of Physics on Society, latest developments in Science and Technology. System of Measuring Units-Need formeasurement,measuringprocess |
|  |  | September | length, time;Fundamentalandderiveunits, systemofunits, conceptsoferror, types oferror (only definition), Accuracy andpre in measurement, least count and applications of measuring instruments - Vernier caliper, Screw Gauge 8 II Motion of objects in dimension-positionoftheobject,origin/referencepoint,frameofreference,definitionsandexamplesofmotioninone,twoan dimension, ScalarandVector quantities, descriptionof motionalongastraightline- distanceand displacement, uniformmotion non-uniform motion, average and instantaneous speed, average and instantaneous velocity, acceleration; graphical analysis oflinemotion-distance-timegraph,velocity-timegraph. |
|  |  | October | Causes of motion-concept of force, Newton’sIst law of motion, inertiaandmass;Newton’s 2 nd law ofmotion, momentum an 3rdlawofmotion,dailylifeapplicationsofNewton’slawsofmotion.Universallawofgravitationandits importance,accelerati to gravity and free fall of abody; mass and weight of an object on earthand moon, concept of thrust and pressure and importadaily life. |
|  |  | November | Work,energy,typesofenergy-KineticenergyandPotentialenergy,P.E.ofanobjectataheight;lawofconservationofenergyaapplications.Conservationoflinearandangularmomentum,collision(elasticandinelastic)andconservationlaws incollisions- importance in daily life. |

# Govt.College,Safidon(Jind)-126112

Session:2025-26(OddSemester)

 Lesson plan of BSC I

 Name of theTeacher: Ms Reenu Devi Subject:Mechanic

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| **Sr.****No.** |  | **Month** | **Topic** |
|  |  | August | Rigidbody,momentofinertia,theoremof perpendicularandparallel,momentofinertiaofring,disc,sol cylinder,Hollow sphere ,rectangular plates,square plate,solid con triangular plate,torque,rotatioanal kinetic energy,angularmomentum,lawofconservationofangular momentum,rollingmotion,conditionforpure rolling,accerleration of body rolling down inclined plane |
|  |  | September | flying wheel, moment of inertia of irregular body,elasticcity ,deforming force ,stress ,strain andtheirtypes,hookslaw ,moduleofelasticity relation between shear angle and angle of twist,determination of elasticConstantformaterialofwirebySearle’smethod,unittest |
|  |  | October | Special theoryof relativity,michelson’smorley experiment and its outcome,postulateof special theoryl transformation,simultancityandorderofevent,Lorentzcontraction,timedilation,relativistictransforma ofVelocity,Relativisticadditionofvelocities,variationofmassenergyequivalence,Gravitationandcentral motionLawofgravitation,potentialandfieldduetosphericalshell |
|  |  | November | Twobodyproblemanditreductiontoonebodyproblemanditssolution,determinationofgbymeansof pendulum,normal coordinates and normalmodes ,possible angular frequencies ofoscillation oftwoiden simple pendulum of length , revision |