COs: Physics

F. Y. B. Sc. Physics 101-
Paper No I: Mechanics, properties of matter & sound:

COL: To familiarize students with basic concepts of mechanics.

CO2. To have deep understanding of Newton's laws of gravitation and their applications.

CO3: To understand the concepts of viscosity and elasticity thoroughly.

CO4: To understand the phenomena of surface tension and its applications.

COS: To understand the concept of ultrasonic and acoustics effectively.

CO6: To enable students to solve numerical problems.

Paper No II: Heat and Thermodynamics

CO1: To understand the concept of thermal conductivity and its application.

CO2: To understand the concept of real gases and transform phenomena.

CO3: To enable students to understand the laws of thermodynamics and thermodynamic process

CO4: To study the concept of entropy thoroughly.

COS: To study heat engines and their efficiency.

CO6: To enable students to solve numerical problems.
Semester II 104-
Paper No IV: Geometa Physical Optics

CO1: To familiarize students with basic concepts of optics.

CO2: To have deep understanding of cardinal points of optical system.

CO3: To understand the concept of interference thoroughly.

CO4: To enable students to summarize phenomena of diffraction andpolarization.

CO5: To enable to solve numerical problems.

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Paper No V: Electricity and Magnetism

CO1: To understand the basic concepts and laws in electrostatics.

CO2: To study the basic concepts and laws in dielectrics.

CO3: To get knowledge of the basic concepts and laws of magnetism.

CO4: To understand the basic concepts of transient current.

COS: To enable students to solve numerical problems involving topics covererd.

Paper No.il: Optics

COL: To understand the basic concept of optics & lens.

CO2: To study the basic concept thin lens cardinal points corresponding lens optical system.

CO3: To get a Knowledge the basic concept Eyepiece & problem.

CO4: To Enable student to solve numerical problem involving topics covered.

S. Y. B. Sc. Physics
Semester III 201-
Paper No VII: Mathematical, Statistical Physics and Relativin

CO1. To familiarize students with the mathematical methods used in physics.

CO2: To familiarize students with the vector algebra..

CO3: To get acquaintance with the differential equations.

CO4: To familiarize students with partial differential equations.

COS: To familiarize students with classical and quantum statistics.

CO6: To understand the concepts of special theory of relativity.

CO7: To apply mathematical methods to solve problems in physics.

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202-Paper No VIII: Modern and Nuclear Physics

CO1: To familiarize learners with basic properties of nucleus.

CO2: To have deep understanding of radioactivity and its applications.

CO3: To familiarize students with nuclear forces and elementary particles.

CO4: To understand construction and working of various particle accelerators and detectors.

COS: To understand photoelectric effect.

CO6: To study different photoelectric cells.

CO7: To enable students to solve numerical problems.

Semester IV 205-Paper No XI: General Electronics

CO1: To familiarize students with basic electronic components.

CO2: To understand semiconductors.

CO3: To have deep knowledge of semiconductor devices.

CO4: To familiarize learners with transistor circuits and their characteristics.

COS: To understand oscillators and multi vibrators.

CO6: To understand the process of modulation and

Demodulation.
CO7. To solve numerical problems.

206-Paper No XII: Solid state Physics

CO1 To familiarize students with basic concepts of structure of solids.

CO2. To familiarize students with characterization techniques

CO3: To understand bonding and band theory of solids deeply.

CO4. To understand transport properties thoroughly.

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COS: To enable students to solve numerical problems.

T. Y. B. Sc. Semester V 54
301- Paper No XV: Classical and Quantum Mechanics

COL: To understand the mechanics of the system of particies

CO2: To understand d'Albert, principle, Langranges equation and its application.

CO3: To familiarize students with historical background of quantum mechanics.

CO4: To understand wave function and its physical interpretations.

COS: To familiarize learners with time dependent and time independent Schrodinger equations and their applications.

CO6: To familiarize students with various operators used in quantum mechanics.

CO7: To enable students to solve numerical problems.

Paper No XVI: Electrodynamics

CO1: To familiarize students with various differential operators to study the Gauss law.

CO2 To familiarize learners with basic concepts and equations related to time varying fields such as Faradays law, Len's law etc.

CO3: To write expression for pointing vectors for electromagnetic waves.

CO4: To enable to write wave equations.

COS: To solve numerical problems.

Semester VI
305-Paper No XIX: Atomic, Molecular Physics and LASER

CO1: To familiarize students with conceptual development of atomic model.

CO2: To understand one and two valence electron systems deeply.

CO3: To understand Zeeman Effect, Paschan back effect, Stark effect etc.

CO4: To understand Molecular Raman Spectroscopy.

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COS: To have deep introduction to lasers.
CO6. To familiarize students with different types of LASERS

CO7. To understand construction and working of various types of LASERS.

COS. To be aware with various applications of LASERS

C09 To enable students to solve numerical problems.

Paper No XX: Non-conventional Energy sources and Optical Fibers

CO1. To introduce students with various types of renewable energy sources.

CO2: To familiarize students with applications of solar energy.

CO3: To familiarize students with applications of biomass energy.

CO4: To familiarize students with wind mechanics.

COS. To create awareness among students about energy conservation.

CO6: To familiarize students with optical fibers.

CO7: To familiarize students with applications of optical fibers.

COS: To enable students to salve numerical problems.

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