Dr. B.B HEGDE FIRST GRADE COLLEGE KUNDAPURA

Department of Physics

Course Outcome as per National Educational Policy

S.N	Code	Course physics	Course outcome
1	PHY C-9	Classical mechanics quantum mechanics	• Student will be able to Identify the failure of classical physics at the microscopic level. • Find the relationship between the normalization of a wave function and the ability to correctly calculate expectation values or probability densities. • Explain the minimum uncertainty of measuring both observables on any quantum state. • Describe the time-dependent and time-independent Schrödinger equation for simple potentials like for instance one-dimensional potential well and Harmonic oscillator. • Apply Hermitian operators, their eigenvalues and eigenvectors to find various commutation and uncertainty relations
2	PHY C-11	Elements ofatomic, molecular and laser physics	Student will be able to • Describe atomic properties using basic atomic models. • Interpret atomic spectra of elements using vector atom model. • Interpret molecular spectra of compounds using basics of molecular physics. • Explain laser systems and their applications in various fields.
3	PHY C14	Elements of condensed matter and nuclear physics	• Thiscoursewillenablethestudentsto explainthebasicpropertiesofnucleusandge

			ttheideaofitsinnerinformation. • Understandtheconceptsofbindingenergyandbindingenergypernucleonv/smassnumbergraph. • Describetheprocessesofalpha,betaandgammadecaysbasedonwell-establishedtheories. • Explainthebasicaspectsofinteractionofgamaradiationwithmatterbyphotoelectriceffect,Comptonscatteringandpairproduction. • Explainthedifferentnuclearradiationdetectorssuchasionizationchamber,Geiger-Muellercounteretc. • E Explainthebasicconceptofscintillationdetectors,photo-multipliertubeandsemiconductor and detectors
4	PHY C16	Electronic instrumatation and sensors	Student will be able to • Identify different types of tests and measuring instruments used in practice and understand their basic working principles. • Get hands on training in wiring a circuit, soldering, making a measurement using an electronic circuit used in instrumentation. • Have an understanding of the basic electronic components viz., resistors, capacitors, inductors, discrete and integrated circuits, colour codes, values and pin diagram, their practical use. • Understanding of the measurement of voltage, current, resistance value, identification of the terminals of a transistor and ICs. • Identify and understand the different types of transducers and sensors used in robust and hand-held instruments. • Understand and give a mathematical treatment of the working of rectifiers,

			filter, data converters and different types of transducers. • Connect the concepts learnt in the course to their practical use in daily life. • Develop basic hands-on skills in the usage of oscilloscopes, multimeters, rectifiers, amplifiers, oscillators and high voltage probes, generators and digital meters. • Servicing of simple faults of domestic appliances: Iron box, immersion heater, fan, hot plate, battery charger, emergency lamp and the like.

HOD

H.O.D. of Physics
Grade College

PRINCIPAL
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