

				Lecture Plan			
Name of the college: Govt College of Arts Science and commerce Sanquelim Goa							
Name of Faculty: Suvarna G Patil			Subject: Physics				
Paper code: PHY111			Program: FY BSc			Division: A	
Academic year: 2025- 2026			Semester: I			Total Lectures: 60	
Course Objectives: To have basic understanding of Physics							
Expected Course Outcome:Understand Physics at basic level							
Student Learning Outcome: Understanding basic physics more deeply							
Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
June	23-06-25	28-06-25	3				

				The wonders of sound 6 Wave motion, wave speed, wave interference,	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
June/July	30/06/25	05/07/25	3	Doppler Effect, Sound in air, forced vibrations, resonance, interference, Beats, Music, Pitch, Sound intensity, Musical Instruments.	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
July	07/07/25	12/07/25	3	Revision and given question bank and solved problems	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
July	14/07/25	19/07/25	3	Electricity: electric charges, Coulomb's law Conductors and Insulators, electric field, electric energy storage, voltage sources, electrical Resistance,		Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
July	21/07/25	26/07/25	3	direct and alternating current, Electric power, Lamps.	Problem solving to	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed.,

				Magnetism: Magnetic poles, magnetic fields, Electric current and magnetic field, Electromagnets,	understand from book		Pearson, 2015. Other reference Books
July - August	28/07/25	02/08/25	3	Faraday's law, Electric Motors, Electric Generators, Power Production, Transformers.	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
August	04/08/25	09/08/25	3	Given question bank, solved problems, conducted isa, Electromagnetic wave, Electromagnetic spectrum, transparent materials,	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
August	11/08/25	16/08/25	3	opaque materials, shadows, Seeing Light, colour, selective reflection, selective transmission, mixing coloured light, natural phenomenon like why sky is blue?	Problem solving to understand from book		P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
August	18/08/25	23/08/25	3	Why Sunsets Are Red? Why Clouds Are White? Why Water Is Greenish Blue? Reflection, Refraction, Dispersion and Rainbows, total internal reflection, Lenses and Mirrors.	Problem solving to understand from book		P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
August	25/08/25	30/08/25	3	Ganesh Chaturthi Break	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books

September	2/09/25	06/09/2025	3	Quantization of energy, wave particle duality, complementarity, predictability and chaos. Bohr Model of the atom, concept of electron waves, Schrodinger's wave equation	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
September	08/09/25	13/09/25	3	X-ray and radioactivity, alpha, beta and gamma rays, environmental radiation, doses of radiation, radioactive traces, The atomic nucleus and the strong force, transmutation of elements, radioactive half-life.	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
September	15/09/25	20/09/25	3	Solids: Density, Elasticity, tension and compression, Scaling. Liquids: Pressure, Buoyancy, Flotation, Archimedes principle, what makes object sink and float, Surface tension,	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
September	22/09/25	27/09/25	3	Capillarity, Gases: The Atmosphere, atmospheric pressure, Barometers, Bernoulli's Principal, Plasma. Temperature, heat, specific heat Capacity, Thermal Expansion. Heat Transfer:	Problem solving to understand from book		P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books

September/October	29/09/25	04/10/25	3	Conduction, Convection and Radiation. Newtons law of cooling. Understanding Matter from solid to plasma Solids: Density, Elasticity, tension and compression, Scaling. Liquids: Pressure, Buoyancy, Flotation, Archimedes principle, what makes object sink and	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
October	06/10/25	11/10/25	3	Surface tension, Capillarity, Gases: The Atmosphere, atmospheric pressure, Barometers, Bernoulli's Principal, Plasma. Revision	Problem solving to understand from book	Chalk Board	P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books
October	12/10/25	18/10/25	3	Revision			

*** Assessment Rubrics**

Component	Max Marks
ISA 1	10
ISA 2	10
ISA 3	10
Semester End Exam	80

