				Lecture Plan			
Name of th	e College: Governme	ent College of Art	s, Science a	nd Commerce. Sanquelim -	Goa		
Name of Faculty: Vidhita Parab				Subject: Physics			
Paper code	: PHY111			Program: F.Y.B.Sc		Division:	
Academic y	rear: 2024-25			Semester: I Total Lectures: 60			: 60
Course Ob	jectives: To unders	stand the basics	of Physics	and learn the application	ns of it.		
 Recall furthem in every control of the control of the	Course Outcome: Student will be able to 1. Recall fundamental concepts in Physics and connect them in everyday life 2. Describe the fundamental concept to understand the physical phenomena happening around us. 3. Apply fundamental concepts in Physics to analyse these phenomena. 4. Correlate the concepts of Physics in other branches of science.						
Student Lo	earning Outcome:	Able to understa	and the ph	ysics used to everyday Lif	e and will be a	able to apply .	
Month	Lecture From	Lecture To	No. of lecture s allotte d	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books

June- july	28-06-2024	06-07-2024	5	Newton's first law of Inertia, Net Force, the equilibrium rule, speed, velocity Acceleration, how fast, friction, Mass and weight, Newtons second law of motion when acceleration is g, when acceleration is less than g, Forces and interaction Newtons third law of motion, Momentum, Impulse, Bouncing, conservation of momentum, collisions,	1. P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books 2. G. Venkataraman, Why are things the way they are? University Physics, 2017. 3. Jerry D. Wilson Physics a practical and conceptual approach, Second edition, Saunders college publications, 1986.
	08-07-2024	13-07-2024	4	work, Power, Potential Circular Motion, Rotational inertia Torque, Center of mass and center of gravity Centripetal force, centripetal force	1. P. G. Hewitt, Conceptual physics, 12th ed., Pearson, 2015. Other reference Books 2. G. Venkataraman, Why are things the
	15-07-2024	20-07-2024	4	centrifugal force, Angular Momentum conservation of	way they are? University Physics, 2017.

				angular momentum.	3. Jerry D. Wilson
				The universal law of	Physics a practical
				gravity	and conceptual
				the universal	approach, Second
				gravitational	edition, Saunders
				constant, Inverse	college publications,
				square law,	1986.
	22-07-2024	27-07-2024		weight and	1300.
			4	weightlessness	
				ocean tides	
				black holes	
				Solids: Density,	1. P. G. Hewitt,
				Elasticity, tension	Conceptual physics,
August	29-07-2024	03-08-2024	3	compression, Scaling.	12th ed., Pearson,
				Liquids: Pressure,	2015.
				Buoyancy, Flotation	Other reference
				Archimedes principle,	Books 2. G.
				what makes object	Venkataraman,
				sink and float,	Why are things the
				Surface tension,	way they are?
				Capillarity,	University Physics,
				Gases: The	2017.
				Atmosphere	3. Jerry D. Wilson
	05-08-2024	10-08-2024		atmospheric pressure,	Physics a practical
				Barometers,	and conceptual
				Bernoulli's Principal,	approach, Second edition, Saunders
			4	Plasma.	college
				Temperature, heat,	publications,
				specific heat Capacity,	1986.
				Thermal Expansion	
				Heat Transfer:	. P. G. Hewitt,
				Conduction	Conceptual physics,

	12-08-2024	17-08-2024		Convection and	12th ed., Pearson,
			4	Radiation	2015.
				Newtons law of	Other reference
				cooling	Books
				Wave motion, wave	2. G.
				speed	Venkataraman, Why are things the
				wave interference,	way they are?
				Doppler Effect	University Physics,
	19-08-2024	24-08-2024		Sound in air, forced	2017.
			4	vibrations	3. Jerry D. Wilson
				resonance,	Physics a practical
				interference	and conceptual
				Beats, Music	approach, Second edition, Saunders
				Pitch,	college
	26-08-2024	31-08-2024		Sound intensity,	publications,
			4	Musical Instruments.	1986.
				Electricity: electric	
				charges, Coulomb's	
				law Conductors and	
				Insulators,	
				electric field, electric	
				energy storage	
				voltage	. P. G. Hewitt,
				sources, electrical	Conceptual physics,
				Resistance,	12th ed., Pearson,
	02-09-2024	05-09-2024		direct and alternating	2015.
				current Electric power,	Other reference
September			4	Lamps.	Books
				Magnetism: Magnetic	2. G.
				poles, magnetic fields,	Venkataraman,
				Electric current	

				and magnetic field,	Why are things the
				Electromagnets	way they are?
	13-09-2024	14-09-2024		Faraday's law, Electric	University Physics, 2017.
				Motors, Electric	3. Jerry D. Wilson
			1	Generators	Physics a practical
	16-09-2024	21-09-2024		Power Production,	and conceptual
			4	Transformers	approach, Second
				Electromagnetic wave,	edition, Saunders
				Electromagnetic	college
				spectrum,	publications,
				transparent materials	1986.
				opaque materials,	
				shadows, Seeing	
				Light, colour	
				selective reflection,	D. C. Howith
				selective transmission,	. P. G. Hewitt, Conceptual physics,
				mixing coloured light	12th ed., Pearson,
	23-09-2024	28-09-2024		natural phenomenon	2015.
				like why sky is	Other reference
				blue? Why Sunsets Are	Books
				Red? Why Clouds Are	2. G.
				White? Why	Venkataraman,
				Water Is Greenish	Why are things the
			4	Blue?	way they are?
				Reflection, Refraction,	University Physics,
				Dispersion	2017.
				Rainbows, total	3. Jerry D. Wilson
				internal reflection	Physics a practical and conceptual
				Lenses and Mirrors	approach, Second
	30-09-2024	05-10-2024		Quantization of	edition, Saunders
	30 03 202 1	00 10 202 7		energy, wave particle	college
October			4	duality,	publications,
Octobel			4	addity,	

			complementarity,	1986.
			predictability and	
			chaos.	
			Bohr Model of the	
			atom,	D C 112 111
			concept of electron	. P. G. Hewitt, Conceptual physics,
			waves,	12th ed., Pearson,
			Schrodinger's wave	2015.
			equation.	Other reference
07-10-2024	12-10-2024	4	X-ray and radioactivity	Books
			alpha, beta and	2. G.
			gamma rays,	Venkataraman,
			environmental	Why are things the
			radiation,	way they are? University Physics,
			doses of radiation,	2017.
			radioactive	3. Jerry D. Wilson
			traces, The atomic	Physics a practical
			nucleus	and conceptual
			the strong force,	approach, Second
			transmutation of	edition, Saunders
			elements	college
14-10-2024	22-10-2024	6	radioactive half-life.	publications,
			revision	1986.
			Revision	

Assessmen t Rubrics ComponentMax MarksISA 110ISA 210

Practical	
Project	
Semester End	
Exam	80