CURRICULAR PLAN - Lecturer-wise OCTOBER 2021

Department : Physics

Name of the Lecturer :- P. Dillikara Rao **Class :** III B.Sc **Paper :** V

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week												
2nd Week												
3rd Week		Gauss's law statement and its proof.	Notes	Teaching	2	Conducted						
4th Week	3 + 2	Electric field intensity due to uniformly charged Sphere, An infinite conducting sheet of charge, Electrical potential	Notes	Teaching Practical	3 2	Conducted		Assignment	01	Conducted		

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CURRICULAR PLAN - Lecturer-wise NOVEMBER 2021

Department : Physics
Name of the Lecturer :- P. Dhilleswara Rao **Class :** III B.Sc **Paper :** V

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	3 + 2	potential due to a point charge charged spherical shell and uniformly charged sphere Relation between D, E and P	Notes	Teaching practical	3 2	Conducted						
2nd Week	3 + 2	Dielectric constant and susceptibility. Boundary conditions, Bio-Savarts law	Notes	Teaching practical	3 2	Conducted		Assignment	01	Conducted		
3rd Week	3 + 2	Lorentz force-Hall effect-Applications, Faradays law Lenz's law	Notes	Teaching practical	3 2	Conducted						
4th Week	3 + 2	Self and mutual inductance coefficient of coupling Transformer-energy loss efficiency.	Notes	Teaching practical	3 2	Conducted		Assignment	01	Conducted		

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CURRICULAR PLAN - Lecturer-wise DECEMBER 2021

Department : Physics

Name of the Lecturer :- P. Thillaiwarasan **Class :** III B.Sc **Paper :** V

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	3 + 2	Alternating current - Relation between current and voltage for LR and CR circuit, vector diagrams	Notes	Teaching practical	3 2	conducted						
2nd Week	3 + 2	LCR Series and parallel resonant circuit. Q-factor idea of displacement current.	Notes	Teaching practical	3 2	conducted		Assignment	01	conducted		
3rd Week	3 + 2	maxwell's equations maxwell's wave equation Transverse nature of Electromagnetic Waves.	Notes	Teaching practical	3 2	conducted						
4th Week	3 + 2	Poynting Theorem. Hertz Experiment P N Junction Diode	Notes	Teaching practical	3 2	conducted		Assignment	01	conducted		

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CURRICULAR PLAN - Lecturer-wise JANUARY 2022

Department : Physics

Name of the Lecturer :- P. Phillistarachan **Class :** III BSc **Paper :** V

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week		Zener diode, PNP and NPN Transistors, CB, CE and CC configuration	Notes	Teaching practical	3 2	Conducted		Assignment	01	Conducted		
2nd Week		Relation between β and γ - transistor(CE) characteristics	Notes	Teaching practical	3 2	conducted						
3rd Week		Determination of hybrid parameters, Transistor as an Amplifier	Notes	Teaching practical	3 2	conducted		Assignment	01	Conducted		
4th Week		Number systems Binary Addition and Substraction	Notes	Teaching practical	3 2	conducted						

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CURRICULAR PLAN - Lecturer-wise OCTOBER 2021

Department : Physics

Name of the Lecturer :- P. Phillisworaju **Class :** III B.SC **Paper :** VI

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week												
2nd Week												
3rd Week		matter waves - wavelength of matter waves.	Notes	Teaching	2	Conducted						
4th Week	3 + 2	properties of matter waves Davisson and Germer experiment - phase and group velocities	Notes	Teaching practical	3 2	Conducted						

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CURRICULAR PLAN - Lecturer-wise NOVEMBER 2021

Department : physics

Name of the Lecturer :- P. Dhillaswararao **Class :** III B.Sc **Paper :** VI

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	3 + 2	Heisenberg's uncertainty principle for position and momentum. Energy and time [Fault]	Notes	Teaching practical	3 2	Conducted		Assignment	01	Conducted		
2nd Week	3 + 2	Experimental verification Basic postulates quantum mechanics - schrodinger time independent and time dependent wave equations	Notes	Teaching practical	3 2	Conducted						
3rd Week	3 + 2	Eigen functions, Eigen values. particle in one dimensional infinite box.	Notes	Teaching practical	3 2	Conducted		Assignment	01	Conducted		
4th Week	3 + 2	Basic ideas of nucleus. Liquid drop model	Notes	Teaching practical	3 2	Conducted						

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CURRICULAR PLAN - Lecturer-wise DECEMBER 2021

Department : Physics **Paper :** VI

Name of the Lecturer :- P. Dhillisitara Rao **Class :** III B.Sc

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	3 + 2	Shell model - magic numbers. Alpha Decay	Notes	Teaching practical	3 2	Conducted		Assignment	01	conducted		
2nd Week	3 + 2	Gamow's theory. Geiger nuttal law.	Notes	Teaching practical	3 2	conducted						
3rd Week	3 + 2	Energy kinematics of β-decay. positron emission neutrino hypothesis.	Notes	Teaching practical	3 2	conducted		Assignment	01	conducted		
4th Week	3 + 2	Types of Lattices miller Indices reciprocal Lattice	Notes	Teaching practical	3 2	conducted						

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CURRICULAR PLAN - Lecturer-wise JANUARY 2021

Department : physics

Name of the Lecturer :- P. Dhillsvara Rao **Class :** III B.Sc **Paper :** VI

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week		Diffraction of x-rays by crystals. Bragg's law Experimental Technique Laue's method.	Notes	Teaching practical	4 2	Conducted						
2nd Week		power method. meissner effect. Type I and Type II super - conductors	Notes	Teaching practical	3 2	conducted		Assignment	01	conducted		
3rd Week		BCS Theory - Applications of super conductors drawbacks of Bohr's atomic model	Notes	Teaching practical	3 2	conducted						
4th Week		Sommerfields elliptical orbits. vector atom model and stern and Gerlach Experiment quantum numbers - Zeeman effect.	Notes	Teaching practical	3 2	conducted		Assignment	01	conducted		

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CURRICULAR PLAN - Lecturer-wise OCTOBER 2021

Department : Physics

Name of the Lecturer :- P. Dhillesvara Rao **Class :** I B.Sc **Paper :** 1

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week												
2nd Week												
3rd Week		Interference of light Introduction	Notes	Teaching	1	Conducted						
4th Week	4 + 2	condition for interference of light. Stokes treatment Lioyd's single mirror method	Notes	Teaching practical	4 2	conducted						

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CURRICULAR PLAN - Lecturer-wise NOVEMBER 2021

Department : Physics

Name of the Lecturer :- P. Dhillisundaram **Class :** I B.Sc **Paper :** II

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	4 + 2	Colours in thin films Newton rings - Theory and Experiment. michelson interferometer	Notes	Teaching practical	4 2	conducted						
2nd Week	4 + 2	Fraunhoffer diffraction at a single slit. Resolving power of grating. Fresnel's half period Zones.	Notes	Teaching practical	4 2	conducted		Assignment	01	conducted		
3rd Week	4 + 2	Zone plate. methods of production of plain : polarized light. Nicol prism.	Notes	Teaching practical	4 2	conducted						
4th Week	4 + 2	Circularly and Elliptically polarized light. Optical activity. Laurent's half shade polarimeter.	Notes	Teaching practical	4 2	conducted		Assignment	01	conducted		

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CURRICULAR PLAN - Lecturer-wise December 2021

Department : Physics

Name of the Lecturer :- P. Phillipsarao **Class :** I B.SC **Paper :** 1

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	4 + 2	Review of Newton's laws of motion; motion of variable mass system, motion of a rocket.	APLMS	Teaching practical	4 2	Conducted		Assignment	01	Conducted		
2nd Week	4 + 2	multistage rocket, concept of exhaust parameters, Scattering cross-section, Rutherford scattering - Derivation.	PPT	Teaching practical	4 2	Conducted		Assignment	01	Conducted		
3rd Week	4 + 2	Central forces, definition and Examples, conservative nature of central forces, equation of motion under a central force	PPT	Teaching Practical	4 2	Conducted		Assignment	01	Conducted		
4th Week	4 + 2	Kepler's law of planetary motion - proofs, motion of satellites, GPS system, Weightlessness.	APLMS PPT	Teaching practical	4 2	Conducted						

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CURRICULAR PLAN - Lecturer-wise January 2022

Department : Physics

Name of the Lecturer :- P. Dhilleswara Rao **Class :** I B.Sc **Paper :** 1

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	4 + 2	Introduction to Relativity, Frames of reference, Galilean transformations, absolute frames.	APLMS PPT	Teaching practical	4 2	conducted		Assignment	01	conducted		
2nd Week	4 + 2	Michelson-Morley Experiment Negative result, Lorentz transformation, time dilation.	APLMS PPT	Teaching practical	4 2	Conducted		Assignment	01	conducted		
3rd Week	4 + 2	Length contraction, Variation of mass with velocity, Einstein's mass-energy relation.	APLMS PPT	Teaching practical	4 2	conducted		Assignment	01	conducted		
4th Week	4 + 2	Simple harmonic oscillator and solution of the differential equation, Damped harmonic oscillator.	APLMS PPT	Teaching practical	4 2	conducted		Assignment	01	conducted		

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CURRICULAR PLAN - Lecturer-wise February 2022

Department : Physics

Name of the Lecturer :- P. Dhilliswara Rao **Class :** I B.Sc **Paper :** 1

Month & Week	Hours available@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	4 + 2	Forced harmonic oscillator Resonance, Logarithmic decrement, Relaxation time and Quality factor.	PPT	Teaching Practical	4 2	Conducted		student Seminar	01	Conducted		
2nd Week	4 + 2	Coupled oscillators, TWO coupled oscillators, Normal coordinates and Normal modes N-coupled oscillators and Wave equation.	PPT	Teaching Practical	4 2	Conducted		student Seminar	01	Conducted		
3rd Week	4 + 2	Transverse wave propagation along a stretched string, General solution of wave equation, modes of vibration of stretched string clamped at ends	APLMS PPT	Teaching Practical	4 2	Conducted		Assignment	01	Conducted		
4th Week	4 + 2	Overtones and Harmonics, melde's strings. Ultrasonics, General property of ultrasonic waves.	APLMS PPT	Teaching Practical	4 2	Conducted		Assignment	01	conducted		

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CURRICULAR PLAN - Lecturer-wise March 2022

Department : Physics

Name of the Lecturer :- P. Phillisvara Rao **Class :** I B.Sc **Paper :** 1

Month & Week	Hours avail-able@	Syllabus topic (as per the university)	Additional Input/ Value Addition	Curricular Activity				Co-curricular Activity				Remarks
				Activity	Hours alloted	Whether conducted	If not, alternate date	Activity	Hours alloted	Whether conducted	If not, alternate date	
1st Week	4 + 2	production of ultrasonics by piezoelectric and magnetostriction methods. Detection of ultrasonics, Applications of ultrasonic waves, SONAR.	APLMS PPT	Teaching practical	4 2	Conducted		Assignment	01	Conducted		
2nd Week	4 + 2	Rigid body, Equation of motion of a rotating body Angular momentum and moment of inertia tensor, Euler equations.	APLMS PPT	Teaching practical	4 2	conducted		Student Seminar	01	Conducted		
3rd Week	4 + 2	precession of a spinning top, Gyroscope, precession of atom and nucleus in magnetic field.	APLMS PPT	Teaching practical	4 2	Conducted		Assignment	01	Conducted		
4th Week	4 + 2	precession of the equinoxes.	APLMS	Teaching practical	4 2	Conducted		Assignment	01	Conducted		

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