

Government College, Nagda, Distt. – Ujjain (M. P.)
B.Sc. 1st year planner Major ii/ Minor/Open Elective

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Faculty's Name - Dr. K.C. Mishra

Class- B.Sc. 1st Year

Session- 2023-24

Subject- Physics

Paper- Minor/Open elective

DATE	TIME	UNIT	(SYLLABUS & TOPICS)	No. of periods
	12:00-12:40	unit 1st(mathematical physics)	(unit vector ,gradient , scalar ,divergence ,curl)	4
	12:00-12:40	unit 1st(mathematical physics)	(gauss divergence, stoke theorem,green theorem)	4
	12:00-12:40	unit 2nd(mechanics)	poisson's ratio ,gravitational self energy, elastic and inelastic collisions	4
	12:00-12:40	unit 2nd(mechanics)	hooke's law,torsion of a cylinder,work done in twisting a rod wire	4
	12:00-12:40	unit 3rd(general properties of matter)	elastic moduli and their relations, torsional oscillations	4
	12:00-12:40	unit 3rd(general properties of matter)	torsional rigidity of a wire, surface tension angle of contact ,capillary rise method, Jaeger's method	4
	12:00-12:40	unit 3rd(general properties of matter)	bernoulli's principle,equation of continuity	4
	12:00-12:40	unit 4th (oscillations)	concept of simple ,periodic and harmonic oscillation ,kinetic potential energy	4
	12:00-12:40	unit 4th (oscillations)	trans.and rota.motion moment of inertia principal moments and axes, motion of a rigid body ,euler's equation	4
	12:00-12:40	unit 5th (relativistic mechanics)	michelson-morley experiment,lorentz transformations ,length	4

			contraction frequency and wave no.	
12:00-12:40	unit 5th (relativistic mechanics)		lorentz transformations, space time interval between two events	4
12:00-12:40	unit 5th (relativistic mechanics)		length contraction,galilean transformations	4
12:00-12:40	unit 5th (relativistic mechanics)		relativistic transformtion and addition of velocities,H-R diagram,chandrasekhar limit	4
12:00-12:40	unit 5th (relativistic mechanics)		experimental verification of mass energy equivalence,rest mass,black hole ,big bang theory, life cycle of stars,neutron star	4
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