



EXAMINATION SYLLABUS 2020-2021

Grades XI

Subject:PHYSICS

This exam syllabus is produced to facilitate teachers, students and the test setters to teach, learn and assess subject specific learning. This syllabus is condensed to align the course content with the teaching learning time during. COVID 19.

DETAIL SYLLABUS

TOPICS / THEMES	SUB TOPIC	PAGE NUMBERS	COGNITIVE LEVELS		
			K	U	A
SCOPE OF PHYSICS	1.1: DEFINITION OF PHYSICS	(pg.1)	✓		
	1.5: MEASUREMENT & SYSTEM OF UNITS	(pg.5 – pg.6)	✓		✓
	1.8: DIMENSIONS	(pg.7 – pg.9)	✓		✓
SCALARS AND VECTORS	SCALARS & VECTORS		✓		✓
	2.4: MULTIPLICATION AND DIVISION OF A VECTOR	(pg.15 – pg.16)	✓		✓
	TYPES OF VECTORS 2.6:UNIT,2.7:FREE,2.8POSITION,2.9NULL)	(pg.16 – pg.20)	✓		✓
	2.13: THE DOT PRODUCT	(pg.35 – pg.39)	✓		✓
	2.16: CROSS PRODUCT	(pg.43– pg.46)	✓		✓
MOTION	3.9: MOTION OF A BODY CONNECTED BY STRING(both cases)	(pg.71 – pg.75)	✓		✓
	3.11: LAW OF CONSERVATION OF MOMENTUM	(pg.78 – pg.79)	✓		✓
	3.13: FRICTION	(pg.84 – pg.89)	✓		✓
	3.15: INCLINED PLANE	(pg.89 – pg.91)	✓	✓	✓
MOTION IN TWO DIMENSIONS	4.1: PROJECTILE MOTION	(pg.97 – pg.98)	✓	✓	✓
	4.2: MAXIMUM HEIGHT OF PROJECTILE	(pg.102 – pg.103)	✓	✓	✓
	4.3: RANGE OF PROJECTILE	(pg.103 – pg.105)	✓	✓	✓
	4.4: UNIFORM CIRCULAR MOTION	(pg.112 – pg.113)	✓	✓	✓
	4.8: ANGULAR DISPLACEMENT	(pg.113 – pg.115)	✓	✓	✓
	4.9: ANGULAR VELOCITY	(pg.115 – pg.118)	✓	✓	✓
	4.10: ANGULAR ACCELERATION	(pg.118 – pg.119)	✓	✓	
	4.14: CENTRIPETAL ACCELERATION	(pg.122 – pg.127)	✓	✓	
	4.15: CENTRIPETAL FORCE	(pg.127 – pg.130)	✓	✓	
TORQUE, ANGULAR	5.1: TORQUE	(pg.137 – pg.141)	✓	✓	

MOMENTUM & EQUILIBRIUM					
	5.3: EQUILIBRIUM AND ITS CONDITIONS	(pg.144 – pg.154)	✓	✓	
	5.7: ANGULAR MOMENTUM	(pg.156 – pg.158)	✓	✓	
GRAVITATION	6.1: NEWTON'S LAW OF UNIVERSAL GRAVITATION	(pg.170 – pg.176)	✓	✓	
	6.2: MASS & AVERAGE DENSITY OF EARTH	(pg.176 – pg.178)	✓	✓	
	6.3: VARIATION OF g WITH DEPTH	(pg.179 – pg.182)	✓	✓	
WORK, POWER AND ENERGY	7.3: POWER 7.7: INTERCONVERSION OF P.E & K.E (WORK-ENERGY EQUATION)	(pg.200 – pg.204) (pg.212 – pg.213)	✓	✓	
WAVE, MOTION & SOUND	8.3: SIMPLE HARMONIC MOTION 8.5: SIMPLE PENDULUM 8.15: SPEED OF SOUND WAVES 8.17: CHARACTERISTICS OF MUSICAL SOUND 8.21: DOPPLER'S EFFECT	(pg.225 – pg.229) (pg.231 – pg.234) (pg.253 – pg.254) (pg.256 – pg.261) (pg.266 – pg.274)	✓	✓	
NATURE OF LIGHT	9.4: YOUNG'S DOUBLE SLIT EXPERIMENT 9.7: MICHELSON'S INTERFEROMETER 9.8: DIFFRACTION GRATING 9.10: DIFFRACTION OF X-RAY THROUGH CRYSTAL	(pg.292 – pg.296) (pg.302 – pg.305) (pg.305 – pg.310) (pg.312 – pg.316)	✓	✓	
GEOMETRICAL OPTICS	10.1: LENSES 10.2: IMAGE FORMATION 10.3: THIN LENS FORMULA 10.7: LINEAR MAGNIFICATION 10.9: COMPOUND MICROSCOPE 10.10: ASTRONOMICAL TELESCOPE	(pg.319 – pg.320) (pg.320 – pg.322) (pg.322 – pg.325) (pg.329) (pg.336 – pg.339) (pg.339 – pg.342)	✓	✓	