NSS F.3 Physics Teaching Syllabus (NSS)(2023-2024)

CYCLE	Topics
1	(Book 3A: Wave Motion I) 1.1 Light Rays 1.2 The laws of reflection
2	1.2 The laws of reflection
3	1.3 Images formed by a plane mirror
4	1.3 Images formed by a plane mirror 2.1 The laws of refraction
5	2.1 The laws of refraction
6	2.2 Total internal reflection
7	2.2 Total internal reflection
8	3.1 Convex and concave lenses 3.2 Images formed by a convex lens
9	3.2 Images formed by a convex lens
10	3.3 Images formed by a concave lens
11	3.3 Images formed by a concave lens

CYCLE	Topics
14	Electromagnetic Spectrum and Application
15	(Book 1: Heat and Gases) 1.1 Temperature and the temperature scale
16	1.2 Thermometers 2.1 Internal energy
17	2.2 Specific heat capacity
18	2.2 Specific heat capacity
19	3.1 Latent heat
20	3.1 Latent heat
21	3.1 Latent heat
22	3.2 Evaporation
23	4.1 Conduction
24	4.2 Convection
25	4.3 Radiation
26	

NSS F.4 Physics Teaching Syllabus (NSS)(2023-2024)

CYCLE	Topics
1	(Book 2: Force and Motion) 1.1 Length and time 1.2 Distance and displacement 1.3 Speed, velocity and acceleration 1.4 Motion along a straight line
2	2.1 Graphs of straight line motion 2.2 Equation of uniformly accelerated motion
3	2.3 Free fall motion 3.1 Introduction of forces
4	3.2 Inertia and Newton's first law 3.3 Net force and motion: Newton's second law
5	3.4 Weight, friction and fluid resistance 3.5 Action and reaction: Newton's third law
6	4.1 Addition and resolution of forces 4.2 Force in a plane and Newton's laws of motion
7	5.1 The turning effect of a force
8	5.2 Equilibrium of a rigid body 6.1 Work and energy transfer
9	6.2 Kinetic energy and potential Energy 6.3 Energy changes and conservation of energy
10	6.4 Power
11	7.1 Conservation of momentum

CYCLE	Topics
14	7.2 Change in momentum
15	8.1 Horizontally projected motion
16	8.2 General projectile motion 9.1 Introduction to circular motion
17	9.2 Centripetal force
18	10.1 Newton's law of universal gravitation
19	10.2 Circular motion under gravity
20	(Book 3B: Wave Motion II) 4.1 Wave motion 4.2 Wave and particle motion of transverse motion
21	4.3 Graphical description of transverse waves 5.1 Observing waves 5.2 Reflection and refraction of waves
22	5.3 Diffraction 5.4 Interference
23	5.5 Stationary Wave
24	6.1 Wave nature of light 6.2 Young's double slit experiment and the plane transmission grating
25	6.2 Young's double slit experiment and the plane transmission grating 6.3 Electromagnetic waves
26	

NSS F.5 Physics Teaching Syllabus (NSS)(2023-2024)

CYCLE	Topics
1	(Book 3B: Wave Motion II) 7.1 Longitudinal wave 7.2 Wave nature of sound
2	7.3 Properties of sound 7.4 Musical notes and noise
3	(Book 4 Electricity and Magnetism 1.1 Electric charges 1.2 Electric field
4	1.3 Electric potential 2.1 Electric current
5	2.2 Electromotive force and potential difference 2.3 Resistance 2.4 Resistors in series and in parallel
6	2.5 Resistance of ammeters, voltmeter and power
7	3.1 Electrical power and energy
8	3.2 Mains electricity and household wiring
9	4.1 Magnetic field 4.2 Magnetic field of electric currents
10	4.3 Current-carrying conductor in a magnetic field
11	4.4 Magnetic force on moving charges

CYCLE	Topics
14	5.1 Current generation in a magnetic field
15	5.1 Current generation in a magnetic field 5.2 Faraday's law and magnetic flux
16	5.2 Faraday's law and magnetic flux
17	5.3 Applications of electromagnetic induction
18	6.1 Alternating current
19	6.2 Transformer and high-voltage transmission
20	(Book 5: Radioactivity and Nuclear Energy) 1.1 X-rays and nuclear radiation 1.2 Radioactivity
21	2.1 The atomic model 2.2 Radioactive decay
22	2.3 Uses of radioisotopes and radiation safety 3.1 Nuclear fission and fusion
23	3.2 Mass-energy relationship 3.3 Application of nuclear energy
24	(Book 1: Heat and Gases) 5.1 The gas laws
25	5.2 The kinetic theory
26	

NSS F.6 Pyisics Teaching Syllabus For NSS (2023-2024)

CYCLE	PROGRAMME
1	[Book E2] 1.1 Rutherford's Model and Scattering Experiment 1.1 1.2 The puzzling Photoelectric Effect
2	1.2 Einstein's Interpretation of the Photo-Electric Effect 2.1 Atomic Spectra
3	2.2 Bohr's Model of the Hydrogen Atom 2.3 Particles or Wave?
4	3.1 Introduction to Nanotechnology 3.2 Seeing at Nano Scale
5	3.3 Some Current Applications and Development of Nanotechnology
6	[E3: Energy and Use of Energy] 1.1 Energy-consuming at home 1.2 Cooking without fire
7	1.2 Cooking without fire 1.3 Air Conditioning
8	2.1 Lightning 2.2 Saving Energy
9	3.1 Energy performance of buildings 3.2 Energy performance of transportation
10	4.1 Non-renewable energy sources 4.2 Renewable energy sources
11	4.2 Renewable energy sources 4.3 Energy Consumption