NSS F.3 Physics Teaching Syllabus (NSS)(2017-2018)

CYCLE	Topics
1 (2 - 9)	[Book 1 Heat] 1.1 Temperature
2 (10 - 17)	1.2 Thermometers
3 (18 - 25)	2.1 Internal Energy
4 (28 - 6)	2.2 Heat and energy transfer
5 (7 - 14)	2.3 Heat capacity and specific heat capacity
6 (15 - 22)	Example of Specific heat capacity
7 (23 - 3)	3.1 Latent heat
8 (4 - 13)	3.2 Evaporation
9 (16 - 25)	Example of Latent heat
10 (26 – 7)	4.1 Conduction
12 (16 - 6)	4.2 Convection

CYCLE	Topics
14 (15 - 22)	4.3 Radiation
15 (25 - 1)	[Book 3A Wave Motion] 1.1 Light Rays
16 (2 - 9)	1.2 The laws of reflection
17 (10 - 26)	Example of law of reflection
18 (1 - 8)	1.3 Images formed by a plane mirror
19 (9 - 16)	2.1 The law of refraction
20 (17 - 24)	Calculation for law of refraction
21 (25 - 1)	2.2 Total internal reflection
22 (12 - 19)	Daily example of total internal reflection
23 (20 - 27)	Calculation for total internal reflection
24 (28 - 6)	3.1 Convex and Concave Lens
25 (7 - 14)	3.2 Images formed by a convex lens
26 (17 - 25)	Ray diagrams
27 (26 - 2)	

NSS F.4 Physics Teaching Syllabus (NSS)(2017-2018)

CYCLE	Topics
1 (2 - 9)	1.1 Time 1.2 Distance and Displacement
2 (10 - 17)	1.3 Speed and velocity 1.4 Change in velocity and acceleration
3 (18 - 25)	2.1 Graphs of straight line Motion
4 (28 - 6)	2.2 Equation of uniformly accelerated motion
5 (7 - 14)	2.3 Free fall motion Review and Exercise
6 (15 - 22)	3.1 Introduction to forces
7 (23 - 3)	3.2 Inertia and Newton's First Law of Motion 3.3 Addition and Resolution of Forces
8 (4 - 13)	3.4 Net force and Motion: Newton's Second Law
9 (16 - 25)	3.5 Action and reaction: Newton's third law
10 (26 – 7)	3.6 The turning effect of a force
12 (16 - 6)	4.1 Work and Energy 4.2 Kinetic and Potential Energy

CYCLE	Topics
14 (15 - 22)	4.3 Energy changes
15 (25 - 1)	4.4 Power
16 (2 - 9)	5.1 Momentum 5.2 Conserving Momentum
17 (10 - 26)	5.2 Example of Conservation of momentum
18 (1 - 8)	6.1 Horizontally projected motion 6.2 General projectile motion
19 (9 - 16)	7.1 Introduction to circular motion 7.2 Uniform circular motion and centripetal force
20 (17 - 24)	8.1 Newton's law of Universal Gravitation 8.2 Gravitational Field
22 (12 - 19)	4.1 The visible spectrum 4.2 The Electromagnetic Spectrum
23 (20 - 27)	4.2 --Example of electromagnetic spectrum 5.1 Wave Motion
24 (28 - 6)	5.2 Wave and particle motion of transverse motion 5.3 Graphical descriptions of transverse waves
25 (7 - 14)	6.1 Observing waves 6.2 Reflection and refraction of waves
26 (17 - 25)	6.3 Diffraction 6.4 Interference
27 (26 - 2)	6.5 Stationary Waves

NSS F.5 Physics Teaching Syllabus (NSS)(2017-2018)

CYCLE	Topics
1	[Book 3B Wave] 7.1 Wave Nature of Wave 7.2 Young' Double-slit Experiment and the plane transmission grating
2	7.3 Electromagnetic Waves 8.1 Longitudinal waves
3	8.2 Wave nature of sound
4	8.3 Properties of sound 8.4 Musical notes and noise
5	[Book 4] 1.1 Electric charges
6	1.2 Electric field
7	1.3 Electric potential
8	2.1 Electric current 2.2 Electromotive force and potential difference 2.3 Resistance
9	2.3 Resistance 2.4 Resistors in series and in parallel
10	2.5 Resistance of ammeters, voltmeters and power sources
12	3.1 Electrical power and energy 3.2 Mains electricity and household wiring
13	3.2 Mains electricity and household wiring 4.1 Magnetic field
14	4.2 Magnetic field of electric currents

CYCLE	Topics
15	4.3 Current -carrying conductor in a magnetic field
16	5.1 Current generation in a magnetic field
17	5.2 Generators and other applications of electromagnetic induction
18	6.1 Alternating current
19	6.2 Transformer and high-voltage transmission
20	[Book 2] 6.1Projectile Motion
21	7.1 Circular Motion
22	7.2 Circular Motion
23	8.1 Newton's law of universal gravitation 8.2 Gravitational field
24	[Book 1] Chapter 5 Kinetic Theory of Gases
25	Root Mean Speed of Gases

NSS F.6 Pyisics Teaching Syllabus For NSS (2017-2018)

CYCLE	PROGRAMME
1 (2 - 9)	[Book E1] 1.1 The Universe at different scale
2 (12 - 20)	2.1 Models of Planetary Motion 2.2 The Dawn of Modern Astronomy
3 (21 - 28)	3.1 Understanding Orbital Motions 3.1 Conservation of Energy in Orbital Motions
4 (29 - 7)	4.1 Measuring Distance to Stars
5 (10 - 17)	4.2 Starlight and the Classification of Stars 4.3 The Doppler Effect of Celestial Bodies
6 (18 - 28)	[Book E2] 1.1 Rutherford's Model and Scattering Experiment 1.2 The puzzling Photoelectric Effect
7 (31 - 7)	1.2 Einstein's Interpretation of the Photo-Electric Effect 2.1 Atomic Spectra
8 (8 - 15)	2.2 Bohr's Model of the Hydrogen Atom 2.3 Particles or Wave?
9 (21 - 28)	3.1 Introduction to Nanotechnology 3.2 Seeing at Nano Scale
10 (29 – 6)	3.3 Some Current Applications and Development of Nanotechnology