

# SUMMER FIELDS SCHOOL, DLF CITY, PHASE-I, GURGAON

SESSION -2018-19

SYLLABUS DISTRIBUTION

Type of Assessment: Periodic Test-1 (Jul 30<sup>th</sup>)

CLASS : XI

SUBJECT :PHYSICS

PRESCRIBED TEXT BOOKS: N.C.E.R.T (1 & 2)

| CHAPTERS / UNITS COVERED  | TEACHING AIDS USED  | ASSOCIATED ACTIVITY   | AV REQ. Y/N | VALUE(S) INHERENT IN THE CHAPTERS  | LEARNING OUTCOME   |
|---|---|---|-------------|--|--|
| Unit 1 – Physical World & Measurement<br>Unit 2 – Kinematics<br>Unit 3 – Laws of Motion | White Board, Charts, Spring Balance, Vernier Callipers, Screw Gauge and Spherometer, N.C.E.R.T (1), Pradeep and S.L.Arora | a) Measurement of dimensions of rigid bodies like spherical bob, rubber pad, glass slab, volume of a beaker etc using Vernier Callipers.<br>b) Measurement of thickness of very small dimensions like a wire, sheets of paper etc using Screw Gauge.<br>c) Measurement of radius of curvature of spherical mirrors using spherometer.<br>d) Calculating weight of an unknown body using Parallelogram law of Vector Addition. | Not reqd.   | a) Scientific temperament<br>b) Patience & alertness<br>c) Presence of mind<br>d) Analytical thinking<br>e) Time management skills | a) Understanding of Dimensional Analysis and their applications.<br>b) Analysis of 1-D motions using Newton’s Equations of Motion.<br>c) Understanding concept of relative velocity.<br>d) Graphical Analysis of P-T, V-T graphs.<br>e) Understanding concept of Vectors and their additions.<br>f) Comprehending Projectile motion and uniform circular motion analysis.<br>g) Conceptual understanding of Newton’s Laws of Motion through its various applications.<br>h) Realisation of friction as a necessary evil<br>i) Understanding of motion of connected bodies.<br>j) Need for banking of a curved road.<br>k) Distinguishing conservative and non-conservative forces. |

# SUMMER FIELDS SCHOOL, DLF CITY, PHASE-I, GURGAON

SESSION -2018-19

SYLLABUS DISTRIBUTION

Type of Assessment: Periodic Test-2 (Sept 17<sup>th</sup>) CLASS : XI

SUBJECT :PHYSICS

PRESCRIBED TEXT BOOKS: N.C.E.R.T (1 & 2)

| CHAPTERS / UNITS COVERED  | TEACHING AIDS USED                                | ASSOCIATED ACTIVITY  | AV REQ. Y/N | VALUE(S) INHERENT IN THE CHAPTERS   | LEARNING OUTCOME  |
|---|---|--|-------------|---|---|
| Unit 4 – Work, Power & Energy<br>Unit 5 – System of Particles & Rotational Motion<br>Unit 6 – Gravitation<br>And rest of PT1 syllabus | White Board, N.C.E.R.T (1), Pradeep and S.L.Arora | a) Citing examples from day to day practical experiences in applications of impulse, Newton’s laws of motion, friction, conservation of energy and momentum<br>b) Calculating and interpreting Moments of Inertia of various rigid bodies. | Not Reqd.   | a) Environmental concern<br>b) Energy Conservation<br>c) Discipline<br>d) Good planning<br>e) Cooperation | a) Understanding of different types of elastic and non-elastic collision.<br>b) Understanding of rotational motion in analogy to linear motion.<br>c) Understanding of Moment of Inertia being a rotational analogue of mass.<br>d) Understanding the variation of acceleration due to gravity with both height and depth from earth’s surface.<br>e) Understanding of satellite motion and their binding energy. |

# SUMMER FIELDS SCHOOL, DLF CITY, PHASE-I, GURGAON

SESSION -2018-19

SYLLABUS DISTRIBUTION

Type of Assessment: Periodic Test-3 (Dec 19<sup>th</sup>)

CLASS : XI

SUBJECT :PHYSICS

PRESCRIBED TEXT BOOKS: N.C.E.R.T (1 & 2)

| CHAPTERS / UNITS COVERED                                      | TEACHING AIDS USED   | ASSOCIATED ACTIVITY   | AV REQ. Y/N | VALUE(S) INHERENT IN THE CHAPTERS  | LEARNING OUTCOME  |
|---|--|---|-------------|--|---|
| Unit 7 – Bulk Properties of Matter<br>Unit 8 – Thermodynamics | Simple Pendulum (with bob),<br>White Board,<br>N.C.E.R.T(1 & 2), Pradeep and S.L.Arora | (a) Verification of Hooke’s Law by loading and unloading an elastic helical spring.<br>b) Verification of acceleration due to gravity from oscillations of a simple pendulum<br>c) Obtaining terminal velocity of a spherical body when dropped through a viscous medium. | Reqd.       | a) Balance in nature<br>b) Energy recycling<br>c) Reversibility in nature<br>d) Scientific attitude<br>e) Alertness<br>f) Practical knowledge<br>g) Helpfulness and caring | a) Understanding of mechanical and thermal properties of both solids and fluids.<br>b) Gaining conceptual knowledge of heat and their applications in heat engines as well as refrigerators.. |

# SUMMER FIELDS SCHOOL, DLF CITY, PHASE-I, GURGAON

SESSION -2018-19

SYLLABUS DISTRIBUTION

Type of Assessment: Final Examination (Feb)

CLASS : XI

SUBJECT :PHYSICS

PRESCRIBED TEXT BOOKS: N.C.E.R.T (1 & 2)

| CHAPTERS / UNITS COVERED   | TEACHING AIDS USED  | ASSOCIATED ACTIVITY   | AV REQ. Y/N | VALUE(S) INHERENT IN THE CHAPTERS   | LEARNING OUTCOME   |
|--|---|---|-------------|---|--|
| Unit 9 – Kinetic Theory of Gases<br>Unit 10 – Oscillations, Waves and Ray Optics.<br>Also, the rest of the syllabus, | Tuning fork<br>White Board,<br>N.C.E.R.T (1 & 2),<br>Pradeep and<br>S.L.Arora | Achieving resonance in a column of water by placing a tuning fork near the open end of the water reservoir, after it is set into vibration by striking on a rubber pad. | Reqd.       | a) Appreciation<br>b) Harmony in unison<br>c) Adaptability towards new technology<br>d) Aesthetic sense<br>e) Good observation<br>f) Logical thinking<br>g) Inquisitiveness<br>h) Concern for noise pollution | a) Understanding of the Kinetic theory of gases.<br>b) Understanding of Oscillatory and SHM and their various types.<br>c) Knowing and determining energy associated with spring oscillation, simple pendulum etc<br>d) Conceptual understanding of Organ pipes and achievement of resonance in musical boxed instruments<br>e) Understanding of apparent frequency and hence Doppler Effect in sound.<br>f) Understanding rectilinear propagation of light and its applications in optical instruments. |