**[PHYSICS](http://www.result.pk)**

**[For Class-X](http://www.result.pk)**

**[1. SIMPLE HARMONIC MOTION AND WAVES](http://www.result.pk)**

[1.1 Simple Harmonic Motion (SHM)](http://www.result.pk)

[1.2 Motion of mass attached to a spring](http://www.result.pk)

[1.3 Simple pendulum](http://www.result.pk)

[1.4 Waves, their nature and type](http://www.result.pk)

[1.5 Properties of waves](http://www.result.pk)

**[2. SOUND](http://www.result.pk)**

[2.1 Sound waves](http://www.result.pk)

[2.2 Speed of sound](http://www.result.pk)

[2.3 Characteristics of sound](http://www.result.pk)

[2.4 Noise pollution](http://www.result.pk)

[2.5 Audible frequency range](http://www.result.pk)

[2.6 Ultrasound](http://www.result.pk)

**[3. GEOMETRICAL OPTICS](http://www.result.pk)**

[3.1 Reflection of light](http://www.result.pk)

[3.2 Image location by spherical mirror equation](http://www.result.pk)

[3.3 Refraction of light](http://www.result.pk)

[3.4 Total internal reflection](http://www.result.pk)

[3.5 Refraction through a prism](http://www.result.pk)

[3.6 Image location by lens equation](http://www.result.pk)

[3.7 Magnifying power and resolving power](http://www.result.pk)

[3.8 Compound microscope](http://www.result.pk)

[3.9 Telescope](http://www.result.pk)

[3.10 Defects in vision](http://www.result.pk)

**[4. ELECTROSTATICS](http://www.result.pk)**

[4.1 Electric charge](http://www.result.pk)

[4.2 Electrostatic induction](http://www.result.pk)

[4.3 Electroscope](http://www.result.pk)

[4.4 Coulomb’s law](http://www.result.pk)

[4.5 Electric field and its intensity](http://www.result.pk)

[4.6 Electrostatic potential](http://www.result.pk)

[4.7 Applications of electrostatic](http://www.result.pk)

[4.8 Capacitors and capacitance](http://www.result.pk)

[4.9 Different types of capacitors](http://www.result.pk)

**[5. CURRENT ELECTRICITY](http://www.result.pk)**

[5.1 Electric current](http://www.result.pk)

[5.2 Potential difference and emf](http://www.result.pk)

[5.3 Ohm’s law](http://www.result.pk)

[5.4 Resistance, series and parallel combinations](http://www.result.pk)

[5.5 The I-V characteristics for ohmic and non ohmic conductors](http://www.result.pk)

[5.6 Electrical power and Joule’s law](http://www.result.pk)

[5.7 Use of circuit components](http://www.result.pk)

[5.8 Measuring instruments (voltmeter, galvanometer, ammeter)](http://www.result.pk)

[5.9 Alternating current A.C](http://www.result.pk)

[5.10 Safety measures](http://www.result.pk)

**[6. ELECTROMAGNETISM](http://www.result.pk)**

[6.1 Magnetic effect of a steady current](http://www.result.pk)

[6.2 Force on a current carrying conductor in a magnetic field](http://www.result.pk)

[6.3 Turning effect on a current carrying coil in a magnetic field](http://www.result.pk)

[6.4 D.C motor](http://www.result.pk)

[6.5 Electromagnetic induction](http://www.result.pk)

[6.6 A.C generator](http://www.result.pk)

[6.7 Mutual Induction](http://www.result.pk)

[6.8 Transformer](http://www.result.pk)

**[7. INTRODUCTORY ELECTRONICS](http://www.result.pk)**

[7.1 Thermionic emission](http://www.result.pk)

[7.2 Electron gun and cathode rays](http://www.result.pk)

[7.3 Deflection of electron by electric field](http://www.result.pk)

[7.4 Deflection of electron by magnetic field](http://www.result.pk)

[7.5 Cathode rays oscilloscope (CRO)](http://www.result.pk)

[7.6 Introduction to electronics](http://www.result.pk)

[7.7 Analogue and digital electronics](http://www.result.pk)

[7.8 Logic gates](http://www.result.pk)

**[8. INFORMATION AND COMMUNICATION TECHNOLOGY](http://www.result.pk)**

[8.1 Components of ICT](http://www.result.pk)

[8.2 Flow of information](http://www.result.pk)

[8.3 Communication technology](http://www.result.pk)

[8.4 Storing information](http://www.result.pk)

[8.5 Handling information](http://www.result.pk)

**[9. RADIOACTIVITY](http://www.result.pk)**

[9.1 Atom and Atomic nucleus](http://www.result.pk)

[9.2 Natural radioactivity](http://www.result.pk)

[9.3 Natural transmutations](http://www.result.pk)

[9.4 Background radiation](http://www.result.pk)

[9.5 Half life](http://www.result.pk)

[9.6 Radio isotopes](http://www.result.pk)

[9.7 Fission and fusion](http://www.result.pk)

[9.8 Hazards and safety measures](http://www.result.pk)

**[LIST OF PRACTICALS](http://www.result.pk)**

**[Section-A](http://www.result.pk)**

[1. To measure the volume of a solid cylinder by measuring length and diameter of a solid cylinder with vernier callipers.](http://www.result.pk)

[2. To measure the thickness of a metal strip or a wire by using a screw gauge.](http://www.result.pk)

[3. To find the acceleration of a ball rolling down an angle iron by drawing a graph between 2S and T](http://www.result.pk)[2](http://www.result.pk)[.](http://www.result.pk)

[4. Investigate the relationship between force of limiting friction and normal reaction to find the co-efficient of sliding friction between a wooden block and horizontal surface.](http://www.result.pk)

[5. To find the weight of an unknown object by using vector addition of forces.](http://www.result.pk)

[6. To find the weight of an unknown object by using principle of moments.](http://www.result.pk)

[7. To study the relationship between load and extension (Helical spring) by drawing a graph.](http://www.result.pk)

[8. To find the density of a body heavier than water by Archimedes principle.](http://www.result.pk)

[9. To draw a graph between temperature and time when ice is converted into water and then to steam by slow heating.](http://www.result.pk)

**[Section-B](http://www.result.pk)**

[10. To study the effect of the length of simple pendulum on its time period and hence find “g” by calculation.](http://www.result.pk)

[11. To verify the laws of refraction by using a glass slab.](http://www.result.pk)

[12. To find the refractive index of water by using concave mirror.](http://www.result.pk)

[13. To determine the critical angle of glass using a glass prism.](http://www.result.pk)

[14. To trace the path of a ray of light through glass prism and measure the angle of deviation.](http://www.result.pk)

[15. To find the focal length of a convex lens by parallax method.](http://www.result.pk)

[16. Verify Ohm’s law (using wire as conductor).](http://www.result.pk)

[17. To study resistors in series circuit.](http://www.result.pk)

[18. To study resistors in parallel circuit.](http://www.result.pk)

[19. To trace the magnetic field using a bar magnet.](http://www.result.pk)

[20. To verify the truth table of OR, AND, NOT, NOR and NAND gates.](http://www.result.pk)

**[RECOMMENDED REFERENCE BOOKS FOR CLASS X](http://www.result.pk)**

 [The question papers will be syllabus oriented. However, the following book is recommended for reference and supplementary reading:](http://www.result.pk)

 [Physics 10](http://www.result.pk)

 [Malik Sirajuddin & Sons](http://www.result.pk)

 [Lahore](http://www.result.pk)

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| [LOGO](http://www.result.pk) |  |
| [Federal Board SSC Examination](http://www.result.pk) [Physics Practical Model Question Paper](http://www.result.pk)  |  |

[Time: 3 hours Marks: 20](http://www.result.pk)

[Note: Perform any TWO experiments, one from each section. Plot a graph where necessary.](http://www.result.pk)

**[SECTION – A](http://www.result.pk)**

[Q.1 Measure the length and diameter of a solid cylinder with Vernier Callipers.](http://www.result.pk) **[(6)](http://www.result.pk)**

[Q.2. To find the weight of an unknown object by using principle of moments.](http://www.result.pk) **[(6)](http://www.result.pk)**

[Q.3 To draw a graph between temperature and time when ice is converted into water and then to steam by slow heating.](http://www.result.pk) **[(6)](http://www.result.pk)**

**[SECTION – B](http://www.result.pk)**

[Q.4 Verify Ohm’s law by using a wire as conductor.](http://www.result.pk) **[(6)](http://www.result.pk)**

[Q.5 Find the resistance of Galvanometer by half deflection method.](http://www.result.pk) **[(6)](http://www.result.pk)**

[Q.6 Find the refractive index of water using concave mirror.](http://www.result.pk) **[(6)](http://www.result.pk)**

[Viva Voce (4)](http://www.result.pk)

[Note Book (4)](http://www.result.pk)

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