

CH:1 PHYSICAL QUANTITIES AND MEASUREMENT

1. What is the S.I unit and C.G.S unit of volume?
2. What is a unit cube?
3. Relate the units of volume?
4. How to measure the volume of regular objects? Give examples?
5. How to measure the volume of irregular objects?
6. How to measure the volume of liquid?
7. What is meniscus?
8. What is the S.I and C.G.S unit of area?
9. Relate the units of area?
10. How to measure the area of regular objects? Give examples?
11. How to measure the area of irregular objects?
12. Explain "Equal volumes of different substances having different masses"?
13. Explain "Equal masses have different volumes"?
14. What is the S.I and C.G.S unit of density?
15. Relate the units of density?
16. How to measure the density of regular objects? Give examples?
17. How to measure the density of irregular objects?
18. What are the units for measuring speed?
19. Relate the units of speed?
20. Define: Volume, area, mass, density, speed.

CH: 2 FORCE AND PRESSURE: MOTION

1. Define rest and motion and explain how rest and motion are related to each other.
2. Explain the following types of motion with examples.
 - i. Translatory motion
 - ii. Curvilinear motion
 - iii. Circular motion

- iv. Rotatory motion
 - v. Oscillatory motion
 - vi. Vibratory motion
 - vii. Periodic motion
 - viii. Non periodic motion
 - ix. Combined motion
 - x. Rolling motion
 - xi. Uniform motion
 - xii. Non uniform motion
3. Differentiate between scalar and vector quantities.
 4. Differentiate between mass and weight.

CH: 3 ENERGY

1. What are the conditions for work done?
2. What is the formula and unit to measure work done?
3. Define energy?
4. Explain mechanical energy and its types with definition and examples.
5. What is the formula to find potential energy and kinetic energy?
6. How to measure instantaneous speed and average speed.
7. Give some examples for “Energies in Action” and define them.
8. Give some examples for “Stored form of Energies” and define them
9. State the law of conservation of energy.
10. Give some examples for energy transformation?
11. What are conventional and non-conventional sources of energy?
12. How work and energy is related.

CH:4 LIGHT ENERGY

1. What are the key factors that make mirror different from other objects?
2. Define reflection of light.
3. What are the terms related to reflection of light? Define each term.

4. What are the laws of reflection?
5. Explain the types of reflection?
6. Explain lateral inversion?
7. Differentiate between real image and virtual image.
8. What are the characteristics of image formed by plane mirror?
9. What is the speed of light in air, water and glass?
10. What are the primary colors? Why are they called so?
11. What are secondary colors? How are they obtained?
12. What are complementary colors?
13. What is color absorption and color reflection? Give some examples.

CH:5 HEAT

1. Define heat and temperature?
2. What are the units for measuring heat? Define them.
3. How is the unit calorie related to joule?
4. What are the different scales for measuring temperature? How are they related to each other?
5. Compare the freezing point and boiling point of water in different scales of temperature.
6. What are the effects of heat?
7. What is thermal expansion
8. What is thermal equilibrium.
9. Explain the change of state of matter with energy absorption and liberation.
10. What are the types of thermal expansion?
11. Give some applications of thermal expansion in everyday life.
12. Compare the thermal expansion of solids, liquids, and gases.
13. What are the methods of transfer of heat? Explain and define each method with example.
14. Differentiate between conductors and insulators.
15. Give some real-life applications of convection currents.
16. Give some applications of conductors and insulators in real life.
17. Explain the absorption and reflection of radiant energy.
18. Give some real-life applications of radiation.

19. What arrangements are made in thermos flask to avoid heat transfer by conduction, convection and radiation.

CH: 6 SOUND

1. How is sound produced and propagated.
2. Will sound travel in vacuum.
3. Explain the types of sound waves?
4. Define the terms related to sound waves.
5. Differentiate between music and noise.
6. Define loudness and explain the factors affecting the loudness of sound.
7. Define pitch and explain the factors affecting the pitch of sound.
8. Define quality of sound.
9. What are audible and inaudible sounds.
10. What is echo. What are the conditions to hear an echo?
11. What is persistence of hearing.
12. Explain SONAR and its working.
13. Compare the relative speed of sound in different media.

CH: 7 ELECTRICITY AND MAGNETISM

1. What are the properties of magnet?
2. What is the law of magnetism?
3. How will you test whether the given material is a magnet or a magnetic material?
4. What is electromagnetic induction.
5. What are the factors affecting the induced current?
6. What is electromagnet.
7. What are the factors affecting the magnetic field of electromagnet?
8. What is a solenoid.
9. What are the properties of magnetic field produced by solenoid?
10. What are the main parts of electric bell and their uses?
11. How does an electric bell work?
12. Define electric current. What is the conventional direction of flow of electric current?
13. Compare the current flow in solids and liquids.

14. Differentiate between primary and secondary cell.
15. Explain the construction and working of dry cell.
16. Differentiate between conductors and insulators of electricity.
17. What are the components used in electric circuits, mention their symbol?
18. What is the use of resistors in electric circuits?
19. Differentiate between series and parallel circuits.
20. Differentiate between open and closed circuits.
21. Differentiate between direct current and alternating current.

