ICSE Board
Class VII Physics
Sample Paper – 3

Time: 2 hrs **Total Marks: 75**

General Instructions:

1. **All** questions are **compulsory**.
2. Questions 1 to 15 carry one mark each.
3. Questions in 2A and 2B carry one mark each.
4. Questions in 3A and 3B carry one mark each.
5. Question in 4A and 4B carries one mark each.
6. Questions in 5A carry one mark each and 5B carry five marks.
7. Questions in 6 carry two marks each.
8. Question 7A and 7B carry ten marks in total.

Question 1

Choose the correct answer out of the four available choices given under each question. [15]

1. What is the weight of a body of mass of 25 kg? ($g = 9.8\ m/s^2$)
(a) 25N
(b) 25 kg
(c) 245 N
(d) 245 kg

2. Sea water is denser than fresh water due to
(a) Evaporation
(b) Mixing of sand
(c) Mixing of salts
(d) Stagnation

3. How much distance does a car cover when it moves 20 km to the east and then 60 km to the west?
(a) 60 km
(b) 80 km
(c) 20 km
(d) 40 km

4. Children below 5 years can hear sounds having a frequency up to
(a) 20 KHz
(b) 30 KHz
(c) 25 KHz
(d) 40 KHz

5. Glass allows light to pass through it because it is
(a) transparent
(b) opaque
(c) luminous
(d) non-luminous

6. When heat is absorbed, the temperature:
(a) Increases
(b) Decreases
(c) Remains same
(d) Becomes zero

7. If an object is at the focus of a concave mirror, then the size of the image formed is
(a) Diminished
(b) Highly diminished
(c) Highly enlarged
(d) Enlarged

8. The degree of hotness or coldness of a body or environment is called
(a) Pressure
(b) Temperature
(c) Melting point
(d) Boiling point

9. What is the angle between the incident and reflected rays when a ray of light is incident normally on a plane mirror?
(a) 90°
(b) 45°
(c) 180°
(d) 0°

10. At what time during the day, will the shadow of a stick be shortest?
(a) Dawn
(b) Mid-day
(c) Afternoon
(d) Dusk

11. If the radius of curvature of a spherical mirror is 34.52 cm, then the focal length of that spherical mirror is

(a) 17.26 cm
(b) -34.52 cm
(c) 69.04 cm
(d) 34.52 cm

12. A metal released in the electrolysis of a salt gets deposited on the

(a) Anode
(b) Cathode
(c) Half on the anode and half on the cathode
(d) Sides of the container

13. Sound can travel through

(a) gases only
(b) solids only
(c) liquids only
(d) solids, liquids and gases

14. Which of the following is used to make a periscope?

(a) Concave mirror
(b) Convex mirror
(c) Plane mirror
(d) Lens

15. Time period of a simple pendulum is given by the formula

(a) $T = \sqrt{\frac{g}{l}}$

(b) $T = 2\pi\sqrt{\frac{g}{l}}$

(c) $T = \sqrt{\frac{l}{g}}$

(d) $T = 2\pi\sqrt{\frac{l}{g}}$

Question 2

(A) Answer the following questions in one word or one sentence. [5]

1. Name two household electric appliances which cool the surroundings.
2. Write any one use of a pinhole camera.
3. What is the speed of sound when it travels through water?
4. State the relationship between focal length and radius of curvature of a spherical mirror.
5. Define kilogram-force?

(B) Fill up the blanks and rewrite the sentences: [5]

1. To test the purity of a sample of milk, we use a device called _____.
2. Light takes about _____ to travel from the Sun to the Earth.
3. Pitch increases with an increase in the _____ of a vibrating body.
4. Non-uniform motion is also called _____ motion.
5. Dry cell was invented by _____.

Question 3

(A) Match the item in column I with the appropriate item in column II. [5]

Column A	Column B
Velocity	Irregular vibration
Noise	Solidification
Gas condenses into solid	Vector
Opaque medium	10^5 dyne
1 N	Wood

(B) Define the following: [5]

1. Uniform Motion
2. Amplitude
3. Freezing
4. Virtual Image
5. Electrolysis

Question 4

(A) Identify and classify the following types of motions as rotatory, non-periodic, vibratory, rolling motion or uniform motion: [5]

A spinning wheel	
Breathing	
A train is moving in straight track	
Movement of a drill	
Motion of tides in the sea	

(B) Give one word for the following [5]

1. The motion in which an object does not cover equal distances in equal intervals of time.
2. The sound produced when two distinct sounds are heard due to the reflection of sound from a rigid smooth distance surface.
3. S.I. unit of temperature.
4. The outer rim of the Sun.
5. Material which does not allow electric current to flow through a circuit.

Question 5

(A) State whether the following statements are True or False [5]

1. Battery is a device which produces an electric current by means of a chemical reaction.
2. A cork floats in water because its density is greater than that of water.
3. Conduction is possible in vacuum.
4. Any polished or shining surface acts as a mirror.
5. For a moving object, displacement can be zero, but distance can never be zero.

(B)

1. Define rules to draw a ray diagram. [3]
2. List three effects of rectilinear propagation of light. [2]

Question 6

Answer the following questions in short:

1. The distance between two stations is 560 km. A train takes 480 minutes to cover this distance. Calculate the speed of the train. [2]
2. Why do we use wooden handles in frying pans [2]
3. Draw a diagram to show the formation of image of a point object in a plane mirror. [2]
4. We should not be barefooted while repairing or replacing any electrical components. Give reasons. [2]
5. When does a lunar eclipse take place? [2]

Question 7

(A)

1. Describe the working of a beam balance. [4]
2. How can you identify a plane mirror, a concave mirror and a convex mirror without touching them? [3]

(B)

1. Difference between a shadow and an image of any object. [3]