

**ICSE Board**  
**Class VIII**  
**Physics**  
**Sample Paper – 1**

**Time: 2 hrs**

**Total Marks: 75**

**General Instructions:**

1. All questions are compulsory.
2. Questions 1 to 15 carry 1 mark each.
3. Questions in 2A and 2B carry 1 mark each.
4. Questions in 3A and 3B carry 1 mark each.
5. Question 4A and 4B carry 5 marks each.
6. Question 5A and 5B carry 5 marks each.
7. Question 6A and 6B carry 5 marks each.
8. Question 7A and 7B carry 5 marks each.

**Question 1**

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

1. If the number of turns in a solenoid is increased, the strength of the magnetic field produced will
  - (a) Decrease
  - (b) Remain the same
  - (c) Increase
  - (d) Increase first and then decrease
2. A freely suspended magnet would come to rest in the
  - (a) East west direction
  - (b) North south direction
  - (c) South east direction
  - (d) North west direction
3. Lightning is caused in the sky due to
  - (a) Two appositively charged clouds
  - (b) Two similarly charged clouds
  - (c) One neutral and one charged cloud
  - (d) None of these
4. The type of lens used as a magnifying glass
  - (a) Concave lens
  - (b) Convex lens
  - (c) Concavo-convex lens
  - (d) Convexo-concave lens

5. A ray of light going from an optically rarer medium to an optically denser medium
- (a) Remains undeviated
  - (b) Bends towards the normal
  - (c) Bends away from the normal
  - (d) None of these
6. If the weight of a body is more than the weight of fluid displaced by it, then the body
- (a) Sinks
  - (b) Floats
  - (c) First floats and then sinks
  - (d) None of these
7. Which of these is a renewable source of energy?
- (a) Coal
  - (b) Petroleum
  - (c) Solar energy
  - (d) L.P.G
8. When a positively charged body is brought close to another positively charged body, it will show
- (a) Attraction
  - (b) Repulsion
  - (c) No effect
  - (d) None of these
9. For a person suffering from hypermetropia, the image of a nearby object is focused \_\_\_\_\_ the retina.
- (a) Behind
  - (b) In front of
  - (c) On
  - (d) None of these
10. Speed of light is maximum in
- (e) Air
  - (f) Water
  - (g) Glass
  - (h) Vacuum
11. The atmospheric pressure at sealevel is
- (a) 76 cm of mercury column
  - (b) 70 cm of mercury column
  - (c) 80 cm of mercury column
  - (d) 66 cm of mercury column

**12.** An image which can be captured on a screen is called

- (i) Erect
- (j) Inverted
- (k) Virtual
- (l) Real

**13.** The direction of conventional current is from

- (a) Higher potential to lower potential
- (b) Lower potential to higher potential
- (c) Both a and b
- (d) None of the above

**14.** The direction of buoyant force is always

- (m) Vertically downward
- (n) Vertically upward
- (o) Along the surface
- (p) At any angle with the surface of liquid

**15.** Which of these is not obtained from petroleum?

- (a) Diesel
- (b) CNG
- (c) Biogas
- (d) Kerosene

**Question 2**

**(A)** Match the columns and rewrite them correctly.

[5]

	Column A		Column B
1	Latent heat of fusion of ice	1	$3 \times 10^8$ m/s
2	Like charges	2	Aryabhata
3	Velocity of light	3	Attraction
4	Artificial satellite	4	Dispersion
5	Rainbow	5	336000 J/gm
		6	Repulsion
		7	300000 m/s

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

1. The space around a magnet where its influence can be felt is called \_\_\_\_\_.
2. \_\_\_\_\_ protects buildings from the damage caused by lightning.
3. Water is used as a \_\_\_\_\_ in thermal power stations.
4. A ray of light passing through \_\_\_\_\_ of a lens passes undeviated.
5. The force of attraction between molecules of the same substance is called \_\_\_\_\_.

### Question 3

**(A)** State whether the following statements are True or False. Correct the false statement and rewrite it. [5]

1. The distance between the focus and optical centre of a lens is called its focal length.
2. An electromagnet is a permanent magnet.
3. Human body is a good conductor of electricity.
4. Atmospheric pressure decreases as we move from sea level to higher altitudes.
5. Evaporation needs an external source of heat.

**(A)** Give reasons for the following: [5]

1. A gas can be easily compressed.
2. Dispersion of light occurs when it passes through a prism.
3. Kilometre is not a convenient unit to measure distances in the universe.
4. A piece of tile or stone feels colder than a piece of wood, even though both are at the same temperature.
5. A normal atom is electrically neutral though it contains charged particles like electrons and protons.

### Question 4

**(A)**

1. What is an electromagnet? How is it different from a permanent magnet? State any two uses of an electromagnet. [3]
2. State the laws of refraction of light [2]

**(B)**

1. What is an electroscope? Name two kinds of electroscopes. [2]
2. Draw field lines when two bar magnets are placed with their opposite poles facing each other. List any two properties of magnetic field lines. [3]

### Question 5

(A)

1. What is nuclear energy? State two precautions to be taken care in nuclear power plants. [2]
2. State two differences between charging by conduction and charging by induction [3]

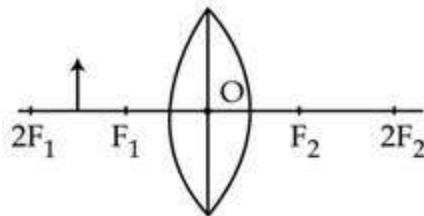
(B)

1. Write any six characteristics of matter and its constituent particles. [3]
2. State the uses of a convex lens. [2]

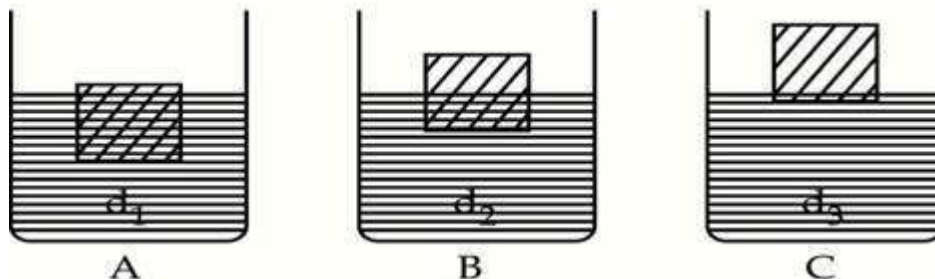
### Question 6

(A)

1. Complete the diagram in your answer book and write the nature of the image formed. [2]



2. State Archimedes' principle. The following figure shows three identical blocks of wood floating in three different liquids A, B and C of densities  $d_1$ ,  $d_2$  and  $d_3$  respectively. Which of these has the highest density? Give reasons to justify your answer. [3]



(B)

1. Name the two factors on which buoyant force depends. State the relationship between the buoyant force on an object and the weight of a liquid displaced by it? [2]
2. Define the following: [3]
  - (a) Conduction
  - (b) Principal axis
  - (c) Valence electrons.

### Question 7

(A)

1. Distinguish between galaxy and constellation. On which day does a lunar eclipse always occur? [3]
2. State any three assumptions of the kinetic theory. [2]

(B)

1. What are constellations? Name any three constellations. [2]
2. State the type of lens used to get a [3]
  - (a) Virtual and diminished image of an object
  - (b) Real and diminished image of an object

Justify your answers in the above two cases by drawing ray diagrams.

