

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 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 4A and 4B carry five marks each.*
 6. *Question 5A and 5B carry five marks each.*
 7. *Question 6A and 6B carry five marks each.*
 8. *Question 7A and 7B carry five marks each.*
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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. Buoyant force exerted by a fluid on a body is equal to the
 - (a) Mass of the body
 - (b) Weight of the body
 - (c) Apparent loss of weight of the body
 - (d) None of these
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 specific heat of water is
 - (a) $42000 \text{ Jkg}^{-1}\text{C}^{-1}$
 - (b) $4200 \text{ Jkg}^{-1}\text{C}^{-1}$
 - (c) $420 \text{ Jkg}^{-1}\text{C}^{-1}$
 - (d) $4250 \text{ Jkg}^{-1}\text{C}^{-1}$

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. Time taken by light to reach the Earth from the Sun is
 - (a) 18 minutes and 10 seconds
 - (b) 8 minutes and 10 seconds
 - (c) 10 minutes and 16 seconds
 - (d) 16 minutes and 10 seconds

7. Which of these is a renewable source of energy?
 - (a) Coal
 - (b) Petroleum
 - (c) Solar energy
 - (d) L.P.G

8. The direction of magnetic lines of force due to a current carrying straight conductor when the electric current flows upwards is
 - (a) Clockwise
 - (b) Anticlockwise
 - (c) Upwards
 - (d) Downwards

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. Sea breeze occurs due to a fall in pressure over the surface of
 - (a) Air
 - (b) Water
 - (c) Land
 - (d) Sea

11. The atmospheric pressure at sea level 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. When light is dispersed by a prism, the colour least dispersed is

- (a) Violet
- (b) Indigo
- (c) Yellow
- (d) Red

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. Earth behaves like a huge bar magnet with its Magnetic North Pole situated near the

- (a) Geographical South Pole
- (b) Geographical North Pole
- (c) Geographical East Pole
- (d) Geographical West Pole

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	3×10^8 m/s
2	Like charges	2	Aryabhatta
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. Steam from within the Earth can be used to generate electricity. This is called _____ energy.
2. In a step up transformer, the _____ coil is thicker; less heavily insulated and has less number of turns.
3. The pressure exerted by a solid is directly proportional to its _____ and inversely proportional to its _____.
4. When an ebonite rod is rubbed with fur, the charge acquired by the ebonite rod is _____.
5. Between air and water, _____ is the denser medium.

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.

(B) Give reasons for the following. [5]

1. A concave lens is used in spectacles for the correction of myopia.
2. The Sun appears to move from the east to the west.
3. A comb rubbed on dry hair attracts small bits of paper.
4. Water has a tendency to form spherical droplets.
5. An ice-cube is used for cooling a drink.

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. Why are astronauts made to wear special suits? [2]
2. Give three observations in our daily life where the principle of evaporation produces cooling. [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]

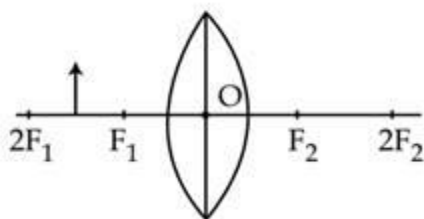
(B)

1. State the 'right hand thumb' rule to find the direction of the magnetic field around a current-carrying straight conductor. Illustrate using a diagram. [3]
2. State the law of floatation. Why does ice float on the surface of water? [2]

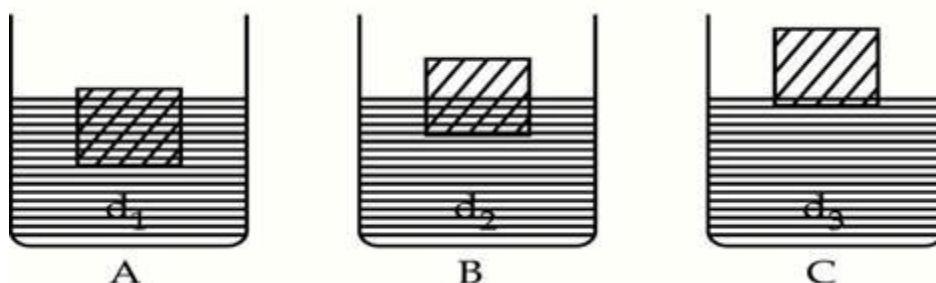
Question 6

(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. Define- 'specific latent heat of fusion'. Calculate the specific latent heat of fusion of ice when 200 g at 0°C is converted to water by supplying 67200 J of heat. [2]
2. Differentiate between the following: [3]
 - (a) Concave and convex lens
 - (b) Solids and liquids

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. State any four precautions which one should take while using energy in everyday life. [2]
2. How do you charge a body by induction? Explain with the help of an example. [3]