



PHYSICS WORKSHEET 2023 - 24

CHAPTER-4 HEAT AND TEMPERATURE

Name: _____

Date: _____

Grade: VII Div: _____

Roll No: _____

PRELIMINARY

1. A Wooden Spoon is Dipped in the cup of ice cream. Its other end
 - (a) become cold by the process of conducting
 - (b) become cold by the process of convection
 - (c) become cold by the process of radiation
 - (d) Do not become cold.
2. The clinical thermometer presently in use in India is marked with a temperature scale. This scale corresponding to which of the following?
 - (a) Celsius
 - (b) Fahrenheit
 - (c) both (a) and (b)
 - (d) None of this.
3. **Assertion Reason** (Select any one of the appropriate option)
 - A. Both A and R correct; and is the correct explanation of A
 - B. Both A and R correct; and is not the correct explanation of A
 - C. A is true and R is false
 - D. A is false and R is true

Assertion: Hot air balloon rises up.

Reason: Hot air has less density than cold air.
- 4 Explain any two applications of radiation from your life experience.

INTERMEDIATE

5. An iron ball of 40°C is dropped in a mug containing water at 40°C . The heat will
 - (a) Flow from the iron ball to water
 - (b) Not flow from the iron ball to water or from the water to the iron ball

- (c) Flow from water to the iron ball
 - (d) Increase the temperature of both .
6. Stainless steel pans are usually provided with copper bottoms. The reason for this could be
- (a) Copper bottoms make the pan more durable .
 - (b) Such a pan appears colourful.
 - (c) Copper is a better conductor of heat than stainless steel.
 - (d) Copper is easier to clean than stainless steel.

Case study

7. Sagar lived in an old house . His father thought of reconstructing the house. He brought a new house plan design to home to show it to every family member. Sagar pointed out that the house lacks ventilators and tall chimneys in the old house. He is happy about that.

- a) Are the ventilators important? Why ?
 - b) Name the mode of heat transfer happening in tall chimneys and ventilators.
 - c) If the house is being constructed in a coastal area , in which direction should the windows preferably face and why ?
8. Conduction of heat does not take place in vacuum .Comment about the statement.
9. Which would you prefer to use during a winter, two thin woollen blankets or a thick woollen blanket? Justify your answer.

ADVANCED

10. When solid candle waxes heated, it becomes liquid. The molecules
- a) absorb heat and move apart .
 - b) absorb heat and come together.
 - c) release heat and move apart.
 - d) release heat and come together (select the correct option)
11. You found that two metal cups were stuck inside each other. Which method would you prefer to separate them easily?

Give reason

- 12. A thick walled glass tumbler forms cracks on pouring hot water.
- 13. Hot water kept in a room cools after a while.
- 14. Brick houses remain cool in summer and do not turn cold in winter.
- 15. The petrol storage tanks are spread with silver paint.