A. Choose the Correct Answer
1 What is the main characteristic of a bet object?
I. What is the main characteristic Of a not object?
A) It has low temperature
B) It transfers heat to cooler objects
C) It does not conduct heat
D) It absorbs heat from cooler objects
2. Which of the following is a good conductor of heat?
A) Wood B) Plastic
C) Copper D) Rubber
3. Why are cooking utensils often made of metal?
A) Metals are poor conductors of heat
B) Metals conduct heat efficiently
C) Metals do not absorb heat
D) Metals prevent food from getting cooked
4. Which of these is considered a poor conductor of heat?
A) Aluminium B) Iron
C) Wood D) Silver
5. What happens when a cold object is placed in contact with a hot object A) The cold object gets colder
B) The hot object gets hotter
C) Heat flows from the hot object to the cold object
D) There is no change in temperature
B. Fill in the Blanks
1. The sensation of hot and cold depends on the of an objec

2. Metals like copper and aluminium are considered \_\_\_\_\_\_ conductors of heat.

- 3. Materials such as wool and plastic are used as insulators because they are \_\_\_\_\_ conductors of heat.
- 4. Stainless steel utensils often have plastic or wooden handles because these materials are \_\_\_\_\_ of heat.
- 5. A frying pan is made of metal to conduct heat quickly, while its handle is made of \_\_\_\_\_\_ to prevent burns.

## C. Case Study

Rohan and Meera conducted an experiment to compare how different materials conduct heat. They took a metal spoon, a plastic spoon, and a wooden spoon and placed them in hot water. After a few minutes, they touched the handles of each spoon to check which one became warm.

- The metal spoon became hot very quickly.
- The wooden spoon remained at room temperature.
- The plastic spoon was slightly warm but not as hot as the metal spoon.

## **Case Study Questions:**

- 1. What does this experiment demonstrate about metal as a conductor of heat?
- 2. Why did the wooden spoon not become hot like the metal spoon?
- 3. Based on this experiment, which material would be best suited for making the handle of a cooking utensil?
- 4. How do insulators help in daily life applications?

# **D. Short Answer Questions**

- 1. What is the difference between a good conductor and a poor conductor of heat?
- 2. Why are woolen clothes worn in winter?
- 3. How does the material of a utensil affect its heating properties?

# E. Long Answer Questions

- 1. Explain why metals are good conductors of heat and how this property is used in everyday life.
- 2. Describe different types of materials used in making kitchen utensils and explain why some materials are better than others.
- 3. How does the concept of conduction help in designing better household items like thermos flasks and cookware?