SHREE VASISHTHA VIDHYALAYA

Subject-Science

Chapter name- Heat (Worksheet)

A. Multiple Choice Questions (MCQs)

1. The SI unit of temperature is:
a) Celsius b) Fahrenheit c) Kelvin d) Joule

2. Heat always flows from:
a) Cold object to hot object
b) Hot object to cold object
c) Both ways
d) None of these

3. Which of the following is a good conductor of heat?
a) Wood b) Plastic c) Copper d) Rubber

4. The mode of transfer of heat in solids is:
a) Conduction b) Convection c) Radiation d) Evaporation

5. The thermometer commonly used in laboratories is:
a) Clinical thermometer b) Mercury barometer
c) Laboratory thermometer d) Digital thermometer

6. Heat transfer in liquids and gases takes place by:
a) Conduction b) Convection c) Radiation d) Reflection

7. The shining surface of a thermos flask prevents heat loss by:
a) Conduction b) Convection c) Radiation d) Evaporation

8. Which of the following is a poor conductor of heat?
a) Silver b) Aluminium c) Air d) Iron

9. Body temperature of a healthy human is about:
a) 100 °C b) 37 °C c) 0 °C d) 98 °C

10. Which method of heat transfer does not require any medium?
a) Conduction b) Convection c) Radiation d) All of these

B. Fill in the Blanks

1. Heat is a form of _____.
2. The unit of heat energy is _____.
3. In liquids and gases, heat is transferred by _____.
4. The clinical thermometer measures temperature of _____.
5. Dark and rough surfaces are _____ absorbers of heat.

C. One Word Answers

1. Name the thermometer used to measure human body temperature.
2. Which gas is a poor conductor of heat and used as an insulator?
3. What is the normal body temperature of humans in Celsius?
4. Name the process by which sun's heat reaches the Earth.
5. What is the lower fixed point in Celsius scale?

D. Short Answer Questions

1. Differentiate between conductors and insulators with examples.
2. Why do we wear woolen clothes in winter?
3. Explain why stainless steel cooking utensils have plastic or wooden handles.
4. How does convection help in the heating of water?
5. Why are black surfaces better absorbers of heat?

E. Long Answer Questions

1. Explain conduction, convection, and radiation with suitable examples.
2. Describe the structure and working of a clinical thermometer.
3. What precautions should be taken while reading a laboratory thermometer?

F. Assertion and Reasoning Questions

Direction: Choose the correct option:

(a) Both Assertion and Reason are true, and Reason is the correct explanation.
(b) Both Assertion and Reason are true, but Reason is not the correct explanation.
(c) Assertion is true, but Reason is false.
(d) Assertion is false, but Reason is true.

1. Assertion: Heat transfer in vacuum takes place by radiation.
Reason: Radiation does not require any medium.

2. Assertion: A clinical thermometer cannot be used in laboratories.
Reason: Clinical thermometer has a small range suitable only for human body temperature.

3. Assertion: Handles of cooking pans are made of metal.
Reason: Metals are poor conductors of heat.

4. Assertion: Dark coloured clothes are preferred in winter.
Reason: Dark colours are good absorbers of heat.

5. Assertion: Air is a poor conductor of heat.
Reason: That is why woolen clothes keep us warm.