

INTERNATIONAL INDIAN SCHOOL BURAIDAH

WORKSHEET FOR THE ACADEMIC YEAR 2025-26

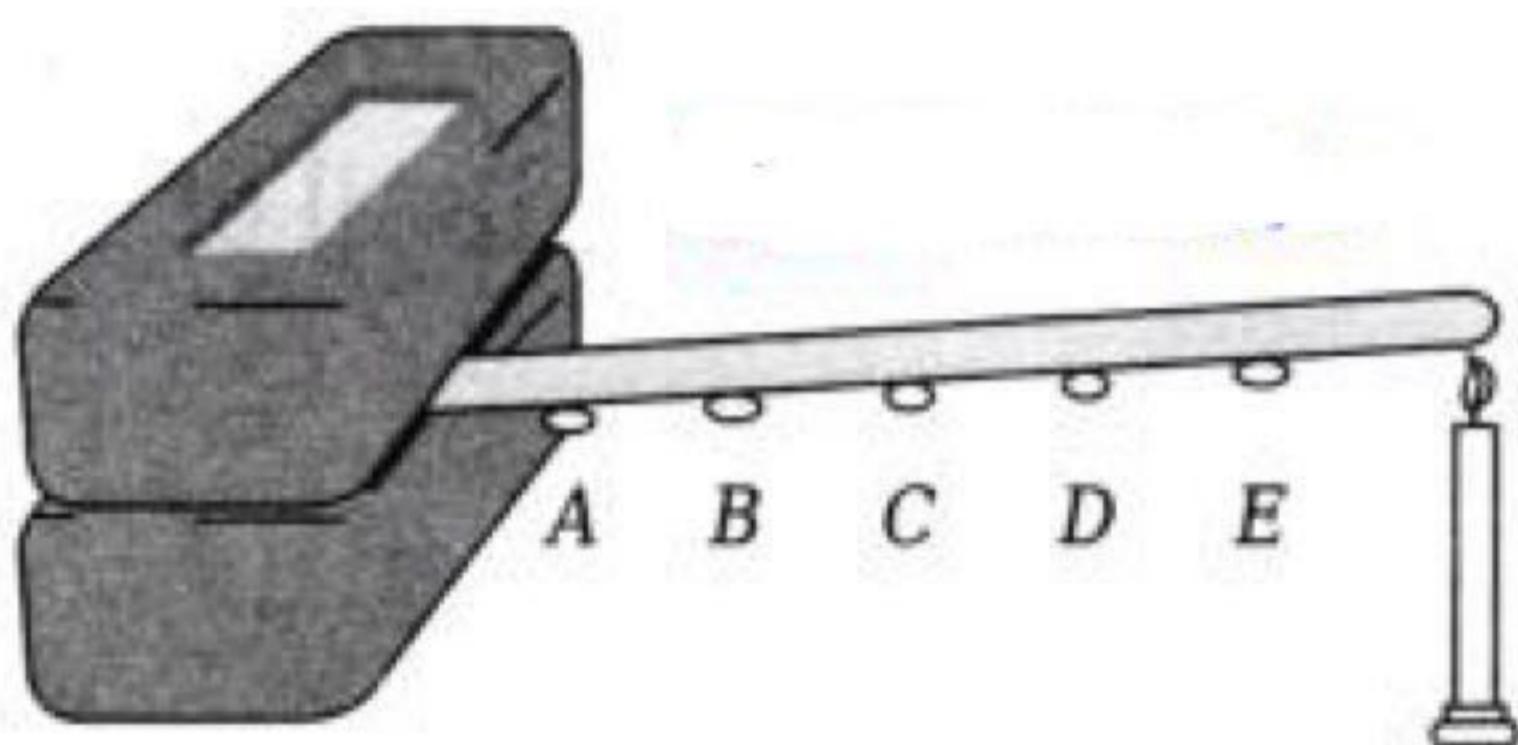
Class-7th / Subject : Science

Lesson # 7 HEAT TRANSFER IN NATURE &

L#8 MEASUREMENT OF TIME AND MOTION

A. Choose the correct option:

1. Bulbs of wax are stuck to the metal rod as shown in the figure. Which of these will melt first?



(a) D (b) E (c) A (d) B

2. Heat from the Sun reaches the Earth through
(a) conduction (b) radiation (c) convection (d) option (a) and (b)

3. In liquids and gases, heat transmission is primarily caused by
(a) Convection (b) Radiation (c) Conduction (d) none of these

4. The underground layers of sediments and rocks that store water in pore space are called
a) infiltration b) water cycle c) aquifers d) precipitation.

B. Fill in the blanks:

1. In liquids and gases, heat is transferred mainly by the process of _____.
2. The heat from the Sun reaches the Earth through _____.
3. In a _____ breeze, cool air from the sea moves towards the land.
4. During the night, the land cools down faster than the sea. This causes a _____ breeze.
5. Water from oceans, lakes, and rivers changes into water vapour during the process of _____.
6. The process of water vapour changing into tiny droplets to form clouds is called _____.
7. The continuous movement of water between the earth and atmosphere is called the _____.
8. The process of surface seeping water through soil and rocks is called _____.
9. In solids, heat is mainly transferred through the process of _____.
10. _____ does not need a medium to transfer heat.

C. The question below consists of an Assertion and a Reason. Use the following key to choose the appropriate answer.

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

1. **Assertion:** Heat is transferred in liquids by the process of convection.

Reason: Liquids allow heat to pass through them easily by conduction.

2. **Assertion:** Sea breeze occurs during the day.

Reason: During the day land gets heated faster than water, this warm air rises up, and cooler air from the sea moves towards the land.

3. **Assertion:** Clouds form due to condensation.

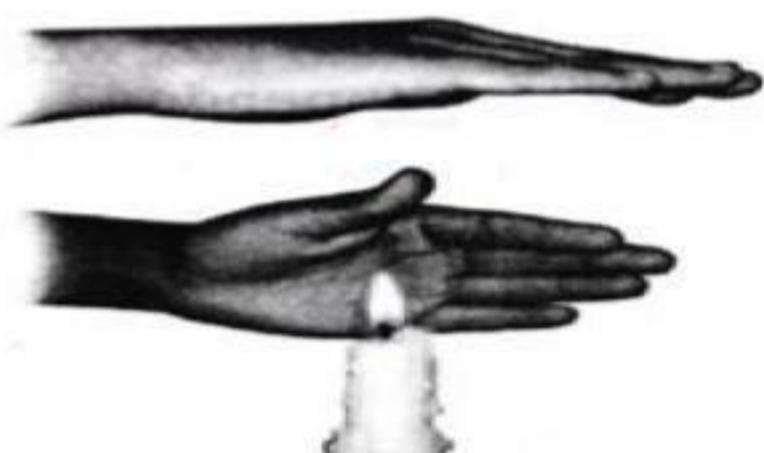
Reason: Radiation does not require any medium for heat transfer.

D. Name the following:

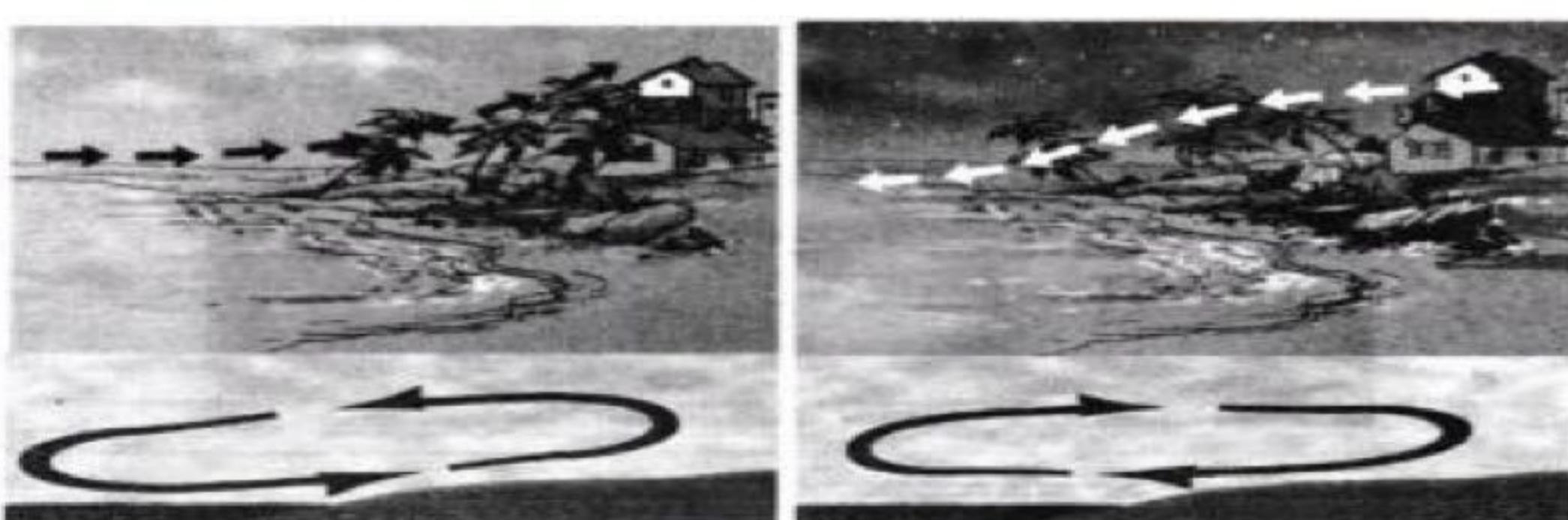
1. A material that allows heat to pass through it.
2. Movement of cooler air from the land towards the sea.
3. The process of heat transfer through liquids and gases.
4. The process of water seeping into the ground

E. Answer the following questions:

1. How does heat transfer take place in liquids?
2. Draw neat and well labelled diagram of water cycle.
3. Study the diagram carefully and name the process by which transfer of heat is taking place.



4. Study the given figure carefully and answer the following question.



- (a) What are the names of the two types of breezes shown in the figures?

L#8 MEASUREMENT OF TIME AND MOTION

A. Choose the correct option:

1. A body is in motion. On which type of path should it travel so that its motion can be called periodic motion?

(a) To and fro (b) Curved path (c) Straight path (d) None of these

2. If distance and time are given, equation for finding speed is

a) speed = $\frac{\text{total distance}}{\text{total time}}$ b) speed = distance x time c) speed = $\frac{\text{total time}}{\text{total distance}}$ d) none of these

3. An object moving along a straight line with a constant speed is said to be in _____ motion

a) non-uniform linear b) uniform linear c) oscillatory motion d) none of these

4. A simple pendulum takes 42 s to complete 6 oscillations. What is its time period ?

(a) 6 s (b) 252 s (c) 7 s (d) None of these

5. Which of the following is not a unit of speed?

(a) Metre/second (b) km/minute (c) km/hour (d) Second/metre

6. A running track at the school sports day is 150 m long. Satyam takes 10 seconds to cover it. The speed of Satyam is

(a) 15 km/s (b) 15 m/s (c) 15 km/h (d) 15 m/h

B. Fill in the blanks:

1. The time taken by a pendulum to complete one oscillation is called its _____.

2. The distance covered by an object in a _____ is called its speed.

3. The SI unit of time is the _____.

4. If the speed of an object moving along a straight line keeps changing, it is said to be in _____ motion.

5. What is the formula to find distance if speed and time are given? _____

6. The average speed of an object is the total distance covered divided by the _____ taken to cover it.

C. The question below consists of an Assertion and a Reason. Use the following key to choose the appropriate answer.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true .

1. Assertion: For measurements, we use the International System of Units.

Reason: kg is the SI unit of time.

2. Assertion: The speed of the body remains constant during uniform motion.

Reason: In uniform motion, the body covers equal distances in equal intervals of time.

D. Define : a) Uniform linear motion b) Time period

E. Answer the following questions:

1. A car covers 240 km in 4 hours. What is its speed?

2. A train travels at a speed of 72 km/h. How much distance will it cover in 3 hours?

3. A bus takes 6 h to reach Lucknow at a speed of 80 km/h. Find the distance it travels.

4. A simple pendulum completes 8 oscillations in 32 seconds. Find its time period.
