



1. State similarities and differences between the laboratory thermometer and the clinical thermometer.

Answer: Similarities:

- (i) Both thermometers consist of long narrow uniform glass tubes.
- (ii) Both have a bulb at one end.
- (iii) Both contain mercury in bulb.
- (iv) Both use Celsius scale on the glass tube.

Differences:

- (i) A clinical thermometer reads temperature  $35^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  while the range of laboratory thermometer is  $-10^{\circ}\text{C}$  to  $110^{\circ}\text{C}$ .
- (ii) Clinical thermometer has a kink near the bulb while there is no kink in the laboratory thermometer.

Due to kink mercury does not fall down on its own in clinical thermometer.

2. Give two examples each of conductors and insulators of heat.

Answer: Conductors—aluminium, iron Insulators—plastic, wood.

3. Fill in the blanks

The hotness of an object is determined by its \_\_\_\_\_ .

(b) Temperature of boiling water cannot be measured by a \_\_\_\_\_ thermometer.

(c) Temperature is measured in degree \_\_\_\_\_ .

(d) No medium is required for transfer of heat by the process of \_\_\_\_\_.

(e) A cold steel spoon is dipped in a cup of hot milk. It transfers heat to its other end by the process of \_\_\_\_\_

(f) Clothes of \_\_\_\_\_ colours absorb heat better than clothes of light colours.

Answer: (a) temperature (b) clinical (c) Celsius (d) radiation (e) conduction (f) dark

4. Match the following :

| Column I   | Column II  |
|--|------------|
| (i) Land breeze blows during                     | (a) summer |
| (ii) Sea breeze blows during                     | (b) winter |
| (iii) Dark coloured clothes are preferred during | (c) day    |
| (iv) Light coloured clothes are preferred during | (d) night  |

Answer:

| Column I   | Column II  |
|--|------------|
| (i) Land breeze blows during                     | (d) night  |
| (ii) Sea breeze blows during                     | (c) day    |
| (iii) Dark coloured clothes are preferred during | (b) winter |
| (iv) Light coloured clothes are preferred during | (a) summer |

5. Discuss why wearing more layers of clothing during winter keeps

us warmer than wearing just one thick piece of clothing?

Answer: More layers of clothing keep us warm in winters as they have a lot of space between them. This space gets filled up with air. Air is a bad conductor, it does not allow the body heat to escape out.

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