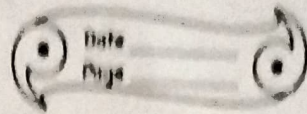


HW
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Homework

Heat



Why is a tea kettle provided with an ebonite handle? In summer ice is kept wrapped in a gunny bag. Explain the reason.

Ans) Tea kettles are provided with an ebonite handle because the wood on the ebonite being insulators of heat, does not pass heat from the utensils to our hand. Thus, we can hold the hot utensils comfortably by their handles.

Q (ii) (A) The air filled in the fire pores of the gunny-bag or saw dust, is insulator of heat. The air does not allow heat from outside to pass through it to the ice. Thus, ice is prevented from melting rapidly.

(ii) State the direction of heat transfer by way of convection.

Ans) In convection, the transfer of heat is always vertically upwards. The reason being that the molecules of the medium near the

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source of heat after absorbing heat start moving faster, so they move further i.e. the medium expands. As a result, the density of medium near the source of heat becomes less i.e. it becomes lighter.