

H/O
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Ch-5 Heat

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Home assignment

1) What do you mean by Thermal expansion?

Ans) When a substance is heated, it expands and when it is cooled, it contracts. Thermal expansion is the tendency of matter to change in shape, volume and area in response to change in temperature.

2) Why do telephone wires sag in summer?

Ans) Telephone wires when connected in summer between two poles, they are kept loose so they may not break when contracted in winter. On the other hand, if the wires are connected in winter between two poles, they are kept tight because they will expand in summer and will sag.

3) Iron rims are heated before they are fixed on the wooden wheels. Explain the reason.

Ans) Iron rims are heated before they are fixed on the wooden wheels because to ensure a tight fit, the rim is made slightly smaller in diameter than the wheel. The iron rim is first heated due to which it expands. The heated rim is then fitted on the wheel. When the rim cools, contracts

and makes a tight the wheel.

Q) Why ^{are} gaps left between successive rails on a railway track?

Ans) The reason is that the rails expand in summer. The gap is provided to allow for this expansion in summer. If no gap is left, the expansion in summer will cause rails to bend sideways. This may cause train accidents.