

16/11/21

HOME ASSIGNMENT

1. Define Thermal Expansion.

Ans: Thermal expansion is the tendency of matter to change in shape, area and volume in response to a change in temperature.

2. Why do telephone wires sag in summer?

Ans: Telephone wires sag in summer because of the thermal expansion. Due to the heat of sun, the wires expand as because metals expand with a rise in temperature, therefore telephone wires sag in summer.

Q4 -
25/11/21

HOME ASSIGNMENT

1. 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 wheel, 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, it contracts and makes a tight fit on the wheel.

2. Why are gaps left between successive rails on a railway track?

Ans: While laying the railway track, a small gap is left between two successive lengths of rails because the rails expand in summer. The gap is provided to allow for this expansion. If no gap is left, the expansion in summer will cause the rails to bend sideways. This may result in train accidents.