



CAMBRIAN PUBLIC SCHOOL

KANKE ROAD, RANCHI

Revision Assignment

Subject: Science

Class: VII

I. Answer in One Word

1 × 6 = 6

- 1) What property allows metals to be beaten into thin sheets?
- 2) Name the continuous closed path along which electric current flows.
- 3) Name the device used to measure the degree of hotness or coldness of an object.
- 4) Which acid is naturally present in human stomach juice to help digest food?
- 5) Name the green pigment present in leaves that absorbs sunlight for photosynthesis.
- 6) Which vascular tissue in plants is responsible for transporting water and minerals from roots to leaves?

II. Competency-Based Case Studies

2 × 2 = 4

Case Study 1 (Electric Switch and Circuit Safety):

Ananya sets up a test circuit with a cell, a bulb, and two open wires. When she connects an iron paper clip between the wires, the bulb glows bright. When she replaces it with an eraser, the bulb goes off.

- a) Is the iron paper clip a conductor or an insulator of electricity?
- b) Why did the bulb stop glowing when the eraser was placed in the circuit?

Case Study 2 (Shaping Materials - Malleability vs. Brittleness):

2 × 2 = 4

A blacksmith strikes a copper block with a heavy hammer, and it flattens into a thin sheet. When he strikes a piece of coal with the same hammer, it breaks into tiny powdery pieces.

- a) Name the property shown by copper when it flattens into a sheet.
- b) Why did coal break into pieces instead of flattening into a sheet when hammered?

Case Study 3 (Modes of Heat Transfer):

2 × 2 = 4

Neha heats water in a metal pan on a stove. She notices that the metal handle gets hot after some time, while water at the top heats up due to warm liquid rising.

- a) By which mode of heat transfer does heat travel through the metal handle of the pan?
- b) What mode of heat transfer warms up the water throughout the pan?

Case Study 4 (Land Breeze and Sea Breeze):

2 × 2 = 4

Rahul went to a coastal town on vacation. He noticed that during the hot daytime, cool air blows from the sea towards the land, whereas at night, the direction of the wind reverses and blows from the land towards the sea.

- a) Why does cool air move from the sea towards the land during daytime (Sea Breeze)?
- b) Which process of heat transfer in air is primarily responsible for causing land and sea breezes?

Case Study 5 (Testing Light Requirement for Photosynthesis):

2 × 2 = 4

Priya kept a potted plant in a dark room for 3 days and then covered a part of one of its leaves with black paper before placing it under sunlight for 6 hours. After performing an iodine test, the uncovered part turned blue-black, while the covered part did not.

- a) Why did the covered part of the leaf fail to give a blue-black color with iodine solution?

- b) Which essential raw material for photosynthesis was blocked by the black paper?

Case Study 6 (Transpiration Pull and Cooling Effect):

2 × 2 = 4

Rohit noticed droplets of water collected inside a transparent polythene bag tied tightly around a leafy branch of a potted plant kept in sunlight.

- a) By which process did water droplets accumulate inside the polythene bag?
b) How does transpiration help tall plants in pulling water up from the soil?
