



CAMBRIAN PUBLIC SCHOOL

KANKE ROAD, RANCHI

Revision Assignment

Subject: Science

Class: VIII

I. Answer in One Word

1 × 6 = 6

- 1) Name the bacterium responsible for turning milk into curd.
- 2) What term is used for non-infectious lifestyle diseases like diabetes or hypertension?
- 3) What is defined as the force acting per unit area of a surface?
- 4) What is the SI unit of pressure?
- 5) What is the SI unit used to measure force?
- 6) Name the temporary magnet created when electric current flows through a coil of wire wrapped around an iron core.

II. Competency-Based Case Studies

2 × 2 = 4

Case Study 1 (Food Preservation & Microbial Growth):

Rohan observed that fresh bread left out in a damp room developed green-black patches after two days, whereas pickles stored in salt and oil remained unspoiled for months.

- 1) Identify the microorganism growing on the bread and explain the environmental conditions that favored its growth.
- 2) Explain the biological principle behind using salt and oil to preserve pickles without refrigeration.

Case Study 2 (Microscopy, Cell Structure & Immunology):

2 × 2 = 4

Under a compound microscope, a student observed Slide A showing green cell walls and large central vacuoles, while Slide B showed flexible boundaries without cell walls. During a school health drive, students also discussed preventive health measures like vaccination.

- 1) Identify which slide contains plant cells and which contains animal cells, giving reasons.
- 2) How does a vaccine train the human immune system to fight specific pathogens? Explain the role of memory cells.

Case Study 3 (Pressure and Area of Contact):

2 × 2 = 4

Maya tries to push a sharp thumbtack into a wooden board using her thumb, and it goes in easily. However, when she tries to push the flat end of a pencil into the board with the same force, it does not go in.

- 1) Why does the sharp thumbtack go into the wood easily compared to the flat end of a pencil?
- 2) How does decreasing the area of contact affect the pressure applied for the same force?

Case Study 4 (High Speed Winds and Roof Lifting):

2 × 2 = 4

During a stormy day with high-speed winds, Amit notices that the tin roof of a nearby shed gets blown off into the air without the walls collapsing.

- 1) Does high-speed wind blowing over the roof create a low-pressure area or a high-pressure area above the tin roof?
- 2) Why did the higher pressure under the roof push the tin sheet upwards?

Case Study 5 (Making an Electromagnet): **$2 \times 2 = 4$**

Aman wraps a copper wire around an iron nail and connects it to a single battery cell. When he brings paper clips near the nail, they stick to it. When he disconnects the battery, the clips drop off.

- 1) What happens to the iron nail when electric current flows through the wire?
- 2) What happens to the magnetic property of the nail when the switch is turned OFF?

Case Study 6 (Pushing and Pulling Objects): **$2 \times 2 = 4$**

A child pushes a toy car across the floor. The car moves forward for a short distance and then slows down and stops.

- 1) Is pushing the toy car an example of a contact force or a non-contact force?
- 2) Which force causes the moving toy car to slow down and stop on the floor?
