

SCIENCE CASE STUDY PRACTICE TEST 2025-26

CLASS VIII

Case Study: 1

Ravi noticed that the iron gate of his house started rusting after the rainy season. His father explained that iron reacts with oxygen and moisture to form rust, which weakens the metal. To prevent this, the gate was sent for galvanisation, a process in which iron or steel is coated with a thin layer of zinc. Zinc forms a protective layer and prevents air and water from reaching the iron surface. Even if the coating gets scratched, zinc protects iron from rusting due to its higher reactivity.

MCQ Questions (No Answers)

1) Galvanisation is mainly done to prevent:

- a) Melting of iron
- b) Rusting of iron
- c) Breaking of iron
- d) Heating of iron

2) In galvanisation, iron is coated with a layer of:

- a) Copper
- b) Aluminium
- c) Zinc
- d) Silver

3) Rust is mainly formed due to reaction of iron with:

- a) Nitrogen and hydrogen
- b) Oxygen and moisture
- c) Carbon dioxide only
- d) Sunlight

4) Zinc protects iron from rusting because it is:

- a) Less reactive than iron
- b) More reactive than iron
- c) Non-metallic
- d) Non-reactive

5) Which of the following items is commonly galvanised?

- a) Plastic pipes
- b) Iron nails
- c) Wooden tables
- d) Glass bottles

- 6) If the zinc coating is scratched, the iron is still protected because zinc:
- a) Evaporates quickly
 - b) Reacts faster than iron
 - c) Dissolves in water
 - d) Becomes magnetic

Case Study 2: Adolescence

Riya is a 13-year-old student who has recently noticed many changes in her body. She has grown taller, started sweating more, and sometimes feels mood swings. Her teacher explained that these changes happen during adolescence, a stage when the body prepares for adulthood. Hormones released by endocrine glands control these changes. During this period, proper nutrition, personal hygiene, exercise, and emotional support are very important for healthy development. Adolescents are also advised to avoid harmful habits and maintain a balanced lifestyle.

MCQs (No Answers)

- 7) Adolescence is the period between:
- a) Infancy and childhood
 - b) Childhood and adulthood
 - c) Adulthood and old age
 - d) Birth and infancy
- 8) The changes seen during adolescence are mainly controlled by:
- a) Digestive enzymes
 - b) Hormones
 - c) Vitamins
 - d) Minerals
- 9) Increased sweating during adolescence is due to:
- a) Reduced gland activity
 - b) Increased activity of sweat glands
 - c) Lack of water
 - d) Less physical growth
- 10) Mood swings in adolescents mostly occur because of:
- a) Lack of sleep only
 - b) Hormonal changes
 - c) Weather conditions
 - d) Eye problems
- 11) Which habit is most important during adolescence?
- a) Skipping meals
 - b) Balanced diet and exercise

- c) Avoiding studies
- d) Sleeping all day

12) Adolescence prepares the body for:

- a) Old age
- b) Infancy
- c) Reproduction and adulthood
- d) Disease resistance only

13) Personal hygiene during adolescence helps mainly to:

- a) Increase height instantly
- b) Prevent infections and maintain health
- c) Stop hormonal changes
- d) Avoid studying

14) Harmful habits should be avoided during adolescence because they:

- a) Improve health
- b) Have no effect
- c) May harm growth and development
- d) Only affect adults