Indian School Al Wadi Al Kabir

Post-Midterm Examination (2025-2026)

Class: VII	Subject: Science	Max. marks: 30
Date: 07/12/2025	Set - II	Time: 1 hour

General Instructions:

i. All questions are compulsory. Marks are indicated against each section.
*ii. The question paper comprises **4** pages and **15** questions in 5 sections: **A, B, C, D** and **E.***
*iii. Q 1 to Q 4 in **section A** are MCQ and carry ONE mark each. Write the correct answer along with the option in the answer script.*
*iv. Q 5 to Q 7 in **section A** are Assertion and Reason and carry ONE mark each.*
*v. Q 8 to Q 10 in **section B** are Short Answer Type Questions and carry TWO marks each.*
*vi. Q 11 to Q 13 in **section C** are Short Answer Type Questions and carry THREE marks each.*
*vii. Q 14 in **section D** is a Long Answer Type Question and carries FIVE marks.*
*viii. Q 15 in **section E** is a Case study / Paragraph Question and carries THREE marks.*
ix. Write the same question number as given in the question paper.
x. Correction fluid should not be used in the answer script.
xi. Diagrams should be drawn using a pencil.

SECTION A (1X7=7)

1. A student observes that when iron nails are left in moist air, a reddish-brown layer forms on their surface. Which preventive method would best stop this from happening?

   a) Keeping the nails in sunlight.
   b) Applying a coat of paint or oil on the nails.
   c) Washing the nails regularly with water.
   d) Storing the nails in an open container.

2. Which of the following statements about non-metals is incorrect?
   a) Non-metals are generally poor conductors of electricity.
   b) Non-metals are usually brittle in solid form.
   c) Non-metals are sonorous and produce sound when struck.
   d) Non-metals may exist as solids, liquids, or gases.

3. A burning candle gives off light and heat. What kinds of changes occur when the wax melts and when it burns?
   a) Both are physical changes.
   b) Both are chemical changes.
   c) Melting is physical, burning is chemical.
   d) Melting is chemical, burning is physical.

4. On a hot sunny day, Aarya chooses to wear a white cotton dress instead of a black one. Which of the following best explains her choice?
   a) Light-coloured clothes absorb more heat and keep the body cool.
   b) Dark-coloured clothes reflect most of the heat and keep the body cool.
   c) Light-coloured clothes reflect most of the heat and keep the body cool.
   d) The colour of clothes does not affect heat absorption.

For questions 5 to 7, two statements are given-one labelled as Assertion(A) and the other labelled as Reason(R). Select the correct answer to these questions from the codes **(i), (ii), (iii) and (iv)** as given below:

(i) Both A and R are true, and R is the correct explanation of the Assertion.

(ii) Both A and R are true, but R is not the correct explanation of the Assertion.

(iii) A is true, but R is false.

(iv) A is false, but R is true.

5. **Assertion (A):** Coal cannot be drawn into wires.

Reason (R): Coal is brittle and not ductile.

6. **Assertion (A):** Freezing is the process in which water turns to ice at 100°C.

Reason (R): Freezing of water is a physical change because only the physical state of water is changed.

7. **Assertion (A):** The air near the ceiling of a room is usually warmer than the air near the floor.

Reason (R): Warm air rises, and cool air sinks due to convection currents in the air.

SECTION B (2X3=6)

8. a) Riya lives in a hill station where temperatures drop very low in winter. She notices that people wear woollen clothes instead of cotton ones. Why are woollen clothes preferred over cotton clothes in winter?

b) Mention the type of heat transfer which does not require a material medium to transfer heat.

9. Give a reason for the following statements.

a) Cloud formation is a physical change.

b) Digestion is a chemical change.

10. a) i) Name the metal which is a liquid at room temperature.

ii) Name the metal that can be cut with a knife.

b) Oxides are the compounds formed when an element reacts with oxygen. Write the nature of metallic and non-metallic oxides.

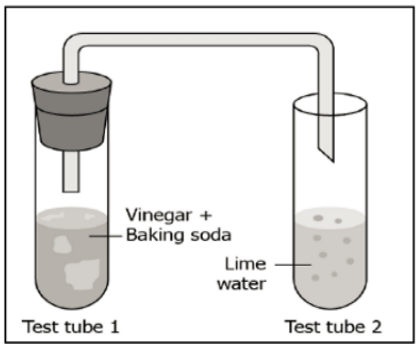
SECTION C (3X3=9)

11. a) Define the term Combustion.

b) A burning candle goes out when covered with a glass jar. Using this example, explain the three conditions necessary for the combustion.

12. With the help of a neat labelled diagram, explain Sea breeze.

13. Observe the given picture and answer the questions.



a) Name the gas produced when vinegar reacts with baking soda.

b) What change will you observe in the appearance of lime water?

c) Write two word equations that represent the processes shown in the diagram.

SECTION D (1X5=5)

14. a) Write an everyday use of Chlorine and Iodine.

b) You are given an iron nail and a piece of coal. Explain with reason which one of these, when connected to an electric circuit makes the electric bulb glow.

c) Why are steel wires preferred for making ropes used in suspension bridges and cranes? Which property of metals makes them suitable for this purpose?

SECTION E (3X1=3)

15.

When rainwater falls on the ground, some of it seeps into the soil. The rate at which water seeps depends on the type of soil. In gravel**,** the spaces between the particles are large and well-connected, so water passes through it very quickly**.** In sand, the spaces are smaller, so water seeps slowly compared to gravel. In clay, the particles are tightly packed and have very tiny spaces between them. As a result, water seeps very slowly or sometimes almost not at all. This difference in seepage rate affects how much groundwater can be stored in a particular area. Areas with sandy or gravel soil allow better groundwater recharge, while clayey regions often lead to waterlogging**.**

i) Why does water seep faster through gravel than through sand?

ii) Clay allows the least amount of water to pass through it. Why?

iii) How does the rate of seepage influence groundwater storage in an area?