

POOJA MODEL SCHOOL
Mid Term Practice Worksheet - 3
Subject: Science
Class: VIII

Time: 3 hours.

Name: _____ Section: _____ Roll No.: _____

Maximum Marks: 80

Date: 5 September 2026

General Instructions:

1. All questions are compulsory.
 2. This question paper consists of Sections A, B, C, D and E.
 3. Section A consists of 20 multiple choice questions of 1 mark each, including 3 Assertion-Reason based questions.
 4. Section B consists of Matching, Fill in the Blanks and True/False type questions of 1 mark each.
 5. Section C consists of short answer questions of 2 marks each, with internal choice.
 6. Section D consists of questions of 3 marks each with internal choice.
 7. Section E consists of case study based questions of 5 marks each with internal choice.
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SECTION A

Q1: From Question I–XX, choose the correct option. (20 × 1 = 20)

I) A scientist changes the amount of sunlight received by two plants while keeping other conditions the same. The amount of sunlight is the:

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|-----------------|---------------------------|
| (A) conclusion | (B) variable being tested |
| (C) observation | (D) result |

II) Which step should normally come after collecting observations in an investigation?

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|------------------------------------|------------------------------------|
| (A) Forming a testable explanation | (B) Ignoring the observations |
| (C) Changing all conditions | (D) Writing the final answer first |

III) Which practice makes a scientific investigation more reliable?

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|---|--------------------------------------|
| (A) Recording only the expected result | (B) Repeating measurements or trials |
| (C) Changing several variables together | (D) Avoiding measurements |

IV) Which microorganism is commonly used for making alcohol and carbon dioxide during fermentation?

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|----------------|---------------|
| (A) Yeast | (B) Amoeba |
| (C) Plasmodium | (D) Rhizobium |

V) Which microorganism helps increase soil fertility by fixing nitrogen in the soil?

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|-------------------|---------------|
| (A) Lactobacillus | (B) Rhizobium |
| (C) Yeast | (D) Amoeba |

VI) Which of the following is a common method of preserving food?

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|--|-----------------------------|
| (A) Keeping it uncovered in a warm place | (B) Refrigeration |
| (C) Adding dust | (D) Keeping it wet and warm |

VII) In a simple electric circuit, which component is used to open or close the path of current?

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|--------------------------|---------------|
| (A) Bulb | (B) Switch |
| (C) Connecting wire only | (D) Cell case |

VIII) A fuse wire is mainly used to:

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|--------------------------------------|--|
| (A) increase the length of a circuit | (B) protect a circuit from excessive current |
| (C) produce oxygen | (D) measure pressure |

IX) When an electric current passes through a coil wound around an iron piece, the iron piece can become a:

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|----------------------|-------------------------|
| (A) temporary magnet | (B) permanent insulator |
| (C) thermometer | (D) pressure gauge |

X) Which force acts when a person pushes a loaded cart?

- | | |
|-------------------------|------------------------------|
| (A) Muscular force | (B) Magnetic force |
| (C) Electrostatic force | (D) Gravitational force only |

XI) Pressure exerted by a force becomes greater when the same force acts on a:

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|------------------------|------------------------|
| (A) larger area | (B) smaller area |
| (C) softer object only | (D) longer object only |

XII) A sharp needle pierces cloth easily because its pointed tip:

- | | |
|---|---------------------------------|
| (A) increases the area of contact | (B) decreases the pressure |
| (C) produces a large pressure on a small area | (D) removes friction completely |

XIII) Which instrument is used to measure wind speed?

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|---------------|----------------|
| (A) Wind vane | (B) Anemometer |
|---------------|----------------|

- (C) Barometer (D) Thermometer
- XIV) Moving air is called:
 (A) wind (B) pressure
 (C) humidity (D) temperature
- XV) Which change of state occurs when water vapour changes into liquid water?
 (A) Melting (B) Freezing
 (C) Condensation (D) Sublimation
- XVI) Which statement about particles of matter is correct?
 (A) Particles have no motion at all (B) Particles are continuously moving
 (C) Particles are visible to the naked eye (D) Particles exist only in gases
- XVII) In a salt solution, the substance that dissolves the salt is called the:
 (A) solute (B) solvent
 (C) residue (D) sediment
- XVIII) Which method is most suitable for separating tea leaves from prepared tea?
 (A) Filtration (B) Sublimation
 (C) Evaporation (D) Magnetic separation
- XIX) Assertion (A): A wet cloth dries faster on a warm, windy day.
 Reason (R): Higher temperature and moving air can increase the rate of evaporation.
 (A) Both A and R are true, and R is the correct explanation of A. (B) Both A and R are true, but R is NOT the correct explanation of A.
 (C) A is true, but R is false. (D) A is false, but R is true.
- XX) Assertion (A): A liquid takes the shape of its container.
 Reason (R): Particles in a liquid can move past one another.
 (A) Both A and R are true, and R is the correct explanation of A. (B) Both A and R are true, but R is NOT the correct explanation of A.
 (C) A is true, but R is false. (D) A is false, but R is true.

SECTION B

Q2. Match Column A with the correct item in Column B. (1×5=5)

Column A	Column B
1. Anemometer	(a) Substance that gets dissolved
2. Fuse	(b) Instrument used to measure wind speed
3. Solute	(c) Temporary magnet made using electric current
4. Electromagnet	(d) Protects a circuit from excessive current
5. Condensation	(e) Change of gas into liquid

Q3. Read the passage below and fill in the blanks. (1×5=5)

During a classroom investigation, students tested different conditions for drying wet cloth. They recorded what they could see and measure as an _____. (i) _____. They repeated the test to make their result more reliable. In another activity, a circuit stopped working safely when too much current flowed because the _____ (ii) _____ melted. The teacher then explained that a salt solution contains a _____ (iii) _____ and a solvent. When water vapour cools, it changes into liquid water by _____ (iv) _____. Finally, students used a device called an _____ (v) _____ to measure the speed of moving air.

Word bank (use each word once): observation • fuse • solute • condensation • anemometer

Q4. State whether the following statements are True or False. (1×5=5)

- A variable is a factor that can be changed or controlled in an investigation.
- Rhizobium is a bacterium that helps in nitrogen fixation.
- A fuse is designed to continue carrying unlimited current without melting.
- Pressure is force acting on a unit area.
- Condensation changes a liquid into a gas.

SECTION C

Q5. Answer the following questions. Attempt any Six of the following questions. (2×6=12)

- What is a variable in a scientific investigation? Give one example.
- What is nitrogen fixation? Name one microorganism that helps in this process.
- Why is a fuse made of a material that melts when excessive current flows?
- Why does a sharp knife cut vegetables more easily than a blunt knife?
- What is the difference between wind speed and wind direction?
- Explain the difference between evaporation and condensation.
- What are solute and solvent? Give one example of a solution.
- Why can a liquid flow but a solid usually cannot?

SECTION D

Q6. Answer the following questions. Attempt any Six of the following questions. (3×6=18)

1. Explain why repeating an investigation and recording measurements carefully improves the reliability of its result.
2. Explain three ways in which microorganisms can be useful to humans.
3. Explain how a fuse protects an electrical circuit when the current becomes too large.
4. Differentiate between contact and non-contact forces. Give one example of each.
5. Explain why school bags with broad straps are more comfortable than bags with very thin straps when carrying the same load.
6. Explain how unequal heating of air can lead to the movement of air and the formation of winds.
7. Describe the arrangement of particles in solids, liquids and gases and relate it to their ability to flow.
8. A mixture contains iron filings, sand and salt. Suggest a sequence of methods to separate all three components.

SECTION E

Q7. Case study based questions. Attempt any three questions of your choice. (5×3=15)

I) Meena wanted to find out whether sunlight affects the rate at which wet cloth dries. She kept two similar pieces of wet cloth under different conditions while keeping the amount of water and size of cloth the same. She recorded the drying time and repeated the activity.

- (a) What factor was Meena testing in this investigation? [1]
- (b) Why was it important to keep the amount of water and size of cloth the same? [2]
- (c) Why should Meena repeat the activity before drawing a conclusion? [2]

II) A farmer noticed that a field had poor soil fertility. The teacher explained that certain bacteria associated with the roots of leguminous plants can help increase the nitrogen available in soil. The teacher also discussed how microorganisms are used in food production.

- (a) Name the bacterium associated with nitrogen fixation in leguminous plants. [1]
- (b) How can such bacteria help the farmer? [2]
- (c) Give two examples of useful activities involving microorganisms. [2]

III) Arjun connected a cell, switch, bulb and fuse in a circuit. When the current became too large, the fuse wire melted and the bulb went off. He replaced the fuse only after finding the cause of the excessive current.

- (a) What happened to the fuse when excessive current flowed? [1]
- (b) How does this action protect the circuit? [2]
- (c) Why should a damaged fuse not simply be replaced without checking the cause of excessive current? [2]

IV) During a rainy day, students noticed that the metal roof of a building was wet in the morning. Later, as the day became warmer, the water slowly disappeared. In another activity, they placed a cold lid over warm water vapour and observed tiny drops forming on the lid.

- (a) Name the process by which the water on the roof slowly changes into water vapour. [1]
- (b) Explain why warming can make the drying process faster. [2]
- (c) Name and explain the process responsible for the formation of water drops on the cold lid. [2]

V) A science group was given a mixture of iron filings, sand and salt. They first removed the iron filings using a magnet. The remaining materials were mixed with water, and the group planned further steps to obtain the sand and salt separately.

- (a) Which method should be used first to remove the iron filings? [1]
- (b) How can the sand be separated after water is added to the mixture? [2]
- (c) How can the dissolved salt be obtained from the remaining salt solution? [2]

— End of Worksheet —