

Mid Term Practice Worksheet - 1

Class 8th

Science

Time: 3hours.

Maximum Marks: 80

Name: _____

Section: _____

Roll No.: _____

Date: 23 August 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.
-

SECTION A

Q1: From Question I–XX, choose the correct option.

(20 × 1 = 20)

- I) Which microorganism is responsible for converting milk into curd?
(A) Rhizobium (B) Lactobacillus (C) Amoeba (D) Yeast
- II) Bread or idli dough rises because of:
(A) Heat (B) Grinding (C) Growth of yeast cells (D) Kneading
- III) The spreading of one substance into another because of the continuous random motion of particles is called:
(A) Filtration (B) Diffusion (C) Evaporation (D) Condensation
- IV) Atmospheric pressure is generally highest at:
(A) Sea level (B) A mountain top (C) A hill station (D) Equally everywhere
- V) In a dry cell, the positive terminal is the metallic tip on top of the carbon rod. Which is the negative terminal of the cell?
(A) Bottom of the carbon rod (B) Bottom of the zinc container (C) The paste of chemicals inside the cell (D) Carbon rod just below the metallic tip
- VI) The strength of an electromagnet depends on:
(A) The nature of the metal used in the coil (B) Number of turns in the coil (C) The strength of the current flowing through the coil (D) All of these
- VII) During dry weather, while combing hair, sometimes we experience hair flying apart. The force responsible for this is:
(A) Force of gravity (B) Electrostatic force (C) Force of friction (D) Magnetic force
- VIII) SI unit of pressure is:
(A) Newton (B) Newton/km (C) Pascal (D) kg/hr
- IX) High-speed winds can:
(A) Blow off roofs (B) Create a low-pressure area (C) Result in lower air pressure above the roofs of houses compared to below the roofs (D) All of the above
- X) Lightning occurs due to the discharge of opposite electric charges:
(A) Within a cloud (B) Between clouds (C) Between clouds and the ground (D) All of the above
- XI) When sugar dissolves in water, it shows that:

(A) Sugar disappears (B) Particles are stationary (C) Matter is continuous (D) Matter is made up of particles

XII) Which of these is NOT a form of matter?

(A) Solid (B) Liquid (C) Energy (D) Gas

XIII) Which of the following best describes a scientific hypothesis?

(A) A proven law (B) A random guess with no basis (C) A testable explanation for an observation (D) A conclusion drawn after publishing results

XIV) Which of the following is a mixture?

(A) Water (B) Common salt (C) Air (D) Oxygen

XV) The particles of matter are held together by:

(A) Gravitational force only (B) A force of attraction between particles (C) Magnetic force (D) No force at all

XVI) Which of the following processes helps in separating a mixture of oil and water?

(A) Filtration (B) Decantation (C) Sublimation (D) Winnowing

XVII) Which of the following is a good conductor of electricity?

(A) Rubber (B) Copper (C) Wood (D) Plastic

Directions (XVIII–XX): Each question below consists of two statements, Assertion (A) and Reason (R). Choose the correct option from the following:

(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.

XVIII) Assertion (A): Yeast is used in bread-making because it produces carbon dioxide gas during fermentation.

Reason (R): Carbon dioxide gas gets trapped in the dough, making it rise and become porous.

XIX) Assertion (A): A current-carrying wire behaves like a magnet.

Reason (R): Electric current flowing through a wire always converts completely into heat energy.

XX) Assertion (A): Atmospheric pressure decreases with an increase in altitude.

Reason (R): At higher altitudes, the density and depth of the air above a given point decreases.

SECTION B

Q2. Match Column A with the correct item in Column B.

(1×5=5)

Column A	Column B
1. Barometer	(a) Testable explanation for an observation
2. Electromagnet	(b) Force that opposes relative motion between two surfaces
3. Friction	(c) Very weak force of attraction between particles
4. Gases	(d) Instrument used to measure atmospheric pressure
5. Hypothesis	(e) Magnet produced due to the flow of electric current

Q3. Read the passage below and fill in the blanks.

(1×5=5)

During a science activity, students added a drop of ink to a glass of water. After some time, the ink spread throughout the water, showing_____ (i)_____ of particles. The teacher then explained that pure iron is an_____ (ii)_____ because it cannot be broken down into simpler substances, whereas salt water is a_____ (iii)_____ since the salt can be separated from it by evaporation.

When the students connected a bulb and a cell in a circuit, current began to flow only after the _____(iv)_____ was closed. Later, the teacher reminded the students that every good scientific explanation begins as a testable _____(v)_____.

Word bank (use each word once): diffusion • element • mixture • switch • hypothesis

Q4. State whether the following statements are True or False.

(1×5=5)

- i. Movement of particles occurs faster in gases than in liquids.
- ii. Air is a compound made only of oxygen and nitrogen.
- iii. Friction always acts in the same direction as the motion of an object.
- iv. The SI unit of pressure is the Pascal.
- v. A hypothesis must be proven true before it can be tested.

SECTION C

Q5. Answer the following questions. Attempt any Six of the following questions.

(2×6=12)

1. Explain why viruses are considered different from other microorganisms.
2. Name a useful microbe and explain one way it helps humans.
3. What happens to a magnetic compass needle placed near a current-carrying wire?
4. State one everyday use of an electromagnet.
5. What is the difference between an observation and an inference? Give one example.
6. Why do scientists repeat an experiment several times before accepting its result.
7. Explain, with an example, the difference between contact and non-contact forces.
8. Give one example each of muscular force and frictional force.

SECTION D

Q6. Answer the following questions. Attempt any Six of the following questions.

(3×6=18)

1. Explain, using the particle model of matter, why gases can be compressed easily but solids cannot.
2. Explain why the smell of perfume released in one corner of a room soon fills the entire room.
3. Give one everyday device that uses each heating and magnetic effect of electric current. Also, explain the application of these effect in that device.
4. Suggest two ways to make an electromagnet stronger.
5. Differentiate between elements, compounds and mixtures, giving one example of each.
6. What causes cyclones to form and mention one safety measure to follow during a cyclone.
7. Explain why high-speed winds can cause the roofs of houses to blow off.
8. How is friction is considered both helpful and harmful, giving one example of each.

SECTION E

Q7. Case study based questions. Attempt any three questions of your choice.

(5×3=15)

I) Amit set up a circuit using a cell, a switch, an electric bell and an electromagnet (made by winding wire around an iron nail), all connected in series. When he closed the switch, the electromagnet attracted small pins and the bell rang at the same time. After a while, the wire connecting the electromagnet became loose and disconnected.

- (a) Draw a simple circuit diagram showing a cell, switch, bell and electromagnet connected in series. [2]
- (b) Why did the electromagnet attract the pins only when the switch was closed? [1]
- (c) Suggest two ways Amit could make his electromagnet stronger. [2]

II) In 2020, India experienced Cyclone Amphan, which had wind speeds of over 200 km/h and affected large parts of West Bengal and Odisha, causing widespread damage.

- (a) What is a cyclone? [2]
- (b) Name the instrument used to measure wind speed. [1]
- (c) Mention two safety measures people should follow during a cyclone. [2]

III) Ritu forgot her lunch box in her school bag over the weekend. When she opened it on Monday, she found green-blue fuzzy patches growing on the bread, along with a sour smell.

- (a) Name the group of microorganisms responsible for the fuzzy patches on the bread. [1]
- (b) Is this type of microorganism generally useful or harmful to humans? How? [2]
- (c) Suggest two ways Ritu could store her food to prevent this from happening. [2]

IV) Sana added salt to water and stirred it. The salt dissolved completely and could not be seen separately. However, the salt can be obtained again by evaporating the water.

- (a) What type of mixture is formed when salt dissolves in water? [1]
- (b) Which method can be used to obtain salt from salt water? Explain how this method works. [2]
- (c) Why is salt water called a mixture? Is a new substance formed when salt is mixed with water? [2]

V) Air contains different gases such as nitrogen, oxygen and carbon dioxide. These gases are not chemically combined and can be present in different proportions.

- (a) What type of matter is air? Give one reason. [2]
- (b) Why can air not be called a compound? [2]
- (c) Are the components of air present in a fixed proportion? [1]

— End of Worksheet —