O. P. JINDAL SCHOOL, SAVITRI NAGAR

Half Yearly Examination - (2026 – 2027)

Class:VIII **MM:50**

Subject: Science **Time: 2Hrs.**

General Instructions – Fifteen minutes extra will be given for reading the Question Paper.

1. **This Question paper comprises of 5 sections A, B, C, D, E.**
2. **There are 14 questions in the Question Paper.**
3. **Section A, Q1 comprises of 10 MCQ type questions and each carries 1 mark.**
4. **Section B, Q2 &Q3 are of case-based type question, each carries 4 marks.**
5. **Q4 is Assertion/Reason type question, carries 2 marks.**
6. **Section C, Q5 to Q 8are very short-answer type questions and each carries 2 marks.**
7. **Section D, Q9 to Q 12are short-answer type questions and each carries 3 marks.**
8. **Section E, Q13 to Q14 are long-answer type questions and each carries 5 marks.**

(SECTION – A)

Q1. Choose the correct answer

i. Why is classifying materials in science important?

(a) To waste time (b) To make them taste better

(c) To better understand their properties (d) To change their colour

ii. What would happen if there were no atmosphere around the Earth?

(a) Increased rainfall (b) Reduced gravity

(c) No air pressure (d) Faster plant growth

iii. Which gas is released during yeast fermentation that makes the dough rise?

(a) Oxygen (b) Nitrogen (c) Carbon dioxide (d) Hydrogen

iv. Which of these microorganisms is correctly matched with its product?

(a) Rhizobium – Alcohol (b) Lactobacillus – Curd

(c) Yeast – Oxygen (d) Spirulina – Vinegar

v. A spring balance is used for measuring-

(a) mass (b) weight (c) pressure (d) speed

vi. What kind of force is applied by a batsman on a ball while hitting it?

(a) Magnetic Force (b) Muscular Force (c) Frictional Force (d) Gravitation Force

vii. SI unit of pressure is-

(a) Newton (b) Newton/km (c) Pascal (d) kilogram/h

viii. In a cyclone, the region of the lowest pressure is at the center, known as-

ix. (a) The eye of the cyclone (b) The body of the cyclone

(c) The air of the cyclone (d) The pressure of the cyclone

x. The arrangement of particles in solids is-

(a) Loose and irregular (b) Tightly packed and fixed

(c) Random and moving freely (d) Widely spaced

xi. The temperature at which a solid starts changing into a liquid state is-

(a) Freezing point (b) Melting point (c) Boiling point (d) Critical point

(SECTION – B)

Q2. Read the given passage and answer the questions:

Snehal dug two separate pits, **A** and **B,** in her garden. In pit A, she threw fruit peels, vegetable scraps, and dry leaves. In pit **B,** she discarded plastic bags, broken glass bottles, and metal soda cans. She covered both pits with soil. After a month, she dug them up to check the contents. The organic matter in Pit **A** will be completely decomposed by soil microorganisms and the contents of Pit **B** remain largely unchanged.

i. What materials did Snehal put in Pit **A**?

(a)Plastic bags and glass bottles

(b)Fruit peels, vegetable scraps and dry leaves

(c)Metal cans and broken glass

(d)Plastic bags and metal cans

ii. What happened to the organic waste in Pit **A** after a month?

(a)It remained unchanged

(b)It turned into plastic.

(c)It was decomposed by soil microorganisms

(d)It became glass.

iii. Why did the contents of Pit **B** remain largely unchanged?

(a)They were covered with water

(b)They were non-biodegradable materials

(c)Soil microorganisms changed them quickly

(d)They were mixed with manure

iv. How do microorganisms help to clean our environment?

(a)By producing plastic

(b)By increasing metal waste

(c)By acting as decomposers and recycling organic matter

(d)By preventing plants from growing.

Q3. Read the passage and answer the given question:

A thunderstorm warning was issued in Neha's city, with lightning and strong winds expected. Residents prepared by staying indoors and avoiding dangerous outdoor areas. Neha observed how lightning forms and why safety precautions are crucial.

(i) What weather event was warned about in Neha's city?

(a)Heat wave (b) Thunderstorm (c) Snowstorm (d) Fog

(ii) Which two conditions were expected during the warning?

(a) Heavy snowfall and fog (b) Lightning and strong winds

(c) Heat and drought (d) Hail and snowfall

(iii) How did the residents prepare for the thunderstorm?

(a) They went outdoors.

(b) They travelled to another city.

(c) They stayed indoors and avoided dangerous outdoor areas.

(d) They stood under trees.

(iv) Why are safety precautions crucial during a thunderstorm?

(a)They help people enjoy the weather

(b)They reduce the risk of danger from lightning and strong winds

(c)They make thunderstorms stop

(d)They prevent clouds from forming

Q4. In the question given below are two statements labelled as Assertion (A) and Reason (R). In the context of the question which of the following is correct?

(i) **Assertion (A):** Animal cells have vacuole which help the cells to retain their shape.

Reason(R): Chloroplasts contain chlorophyll that helps in photosynthesis.

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true and R is not the correct explanation of A.

(c) A is True but R is False.

(d) A is False but R is true

(ii) **Assertion (A):** Viruses are different from other microorganisms like bacteria and fungi.

Reason(R): Viruses can multiply only when they enter a living host cell.

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true and R is not the correct explanation of A.

(c) A is True but R is False.

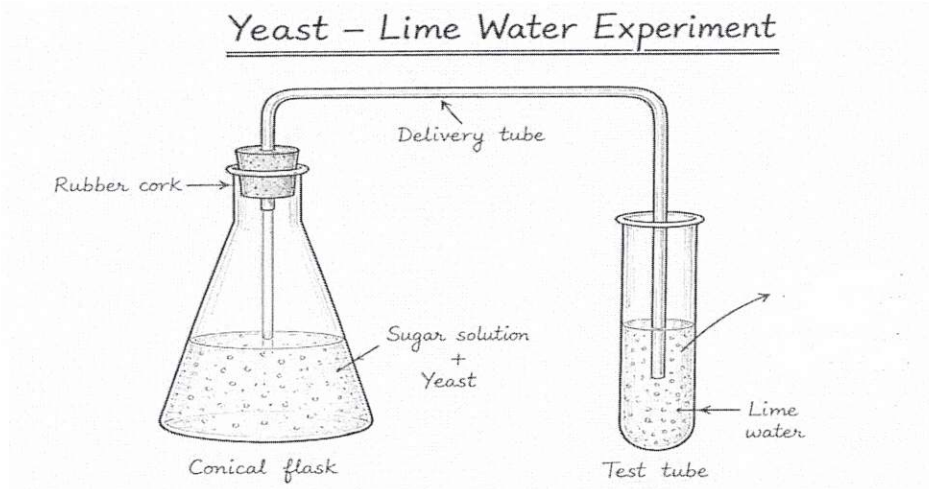
(d) A is False but R is true

(SECTION – C)

Q5. Draw labelled diagram of Plant cell.

OR

Observe the set-up given in Figure and answer the following questions.



(i) What do you observe in test tube B after four hours? Why do you think this happened?

(ii) What would happen if yeast were not added to flask A?

Q6. What does it mean to investigate like a scientist?

Q7. **(i)**What is atmospheric pressure? Write SI unit of atmospheric pressure?

(ii) Why we are not crushed by atmospheric pressure?

Q8. Grains of rice and rice flour take the shape of the container when placed in different jars. Are they solids or liquids? Explain.

OR

Sugar and sand are both solids. Why does sugar dissolve in water, but sand does not?

(SECTION – D)

Q9 Draw labelled diagram of different states of matter.

Q10 Why does it feel harder to pedal a bicycle when going uphill than on flat ground?

OR

Distinguish between contact forces and non-contact forces with examples.

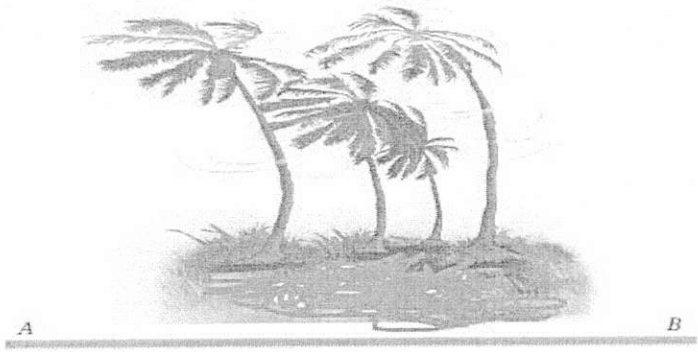
Q11 **(i)** How can human activity affect the Earth's climate?

(ii) Why is one side of a puri thinner than the other?

Q12 There are two boats, A and B. Boat A has a base area of 7 m^2, and 5 persons are seated in it. Boat B has a base area of 3.5 m^2, and 3 persons are seating in it. If each person weighs 700 N, find out which boat will experience more pressure on its base and by how much?

OR

The figure shows trees along the sea coast on a summer afternoon. Identify which side is land – A or B. Explain your answer.



(SECTION – E)

Q13 **(i)** How do intermolecular forces differ in solids, liquids, and gases?

(ii) Write difference between boiling and evaporation.

OR

(i) Write an activity to show that particles of gases move freely in all the direction.

(ii) Why we are able to move our hand in liquid but in solids do not?

Q14 **(i)** What is the weight of an object on the Moon if its weight on Earth is 72kg? What causes this change? Does the mass of the object also change on the moon of its mass on the Earth?

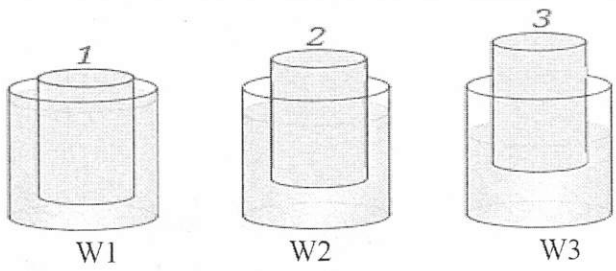
(ii) When you drop a coin in a glass of water, it sinks, but when you place a bigger wooden block in water, it floats. Explain.

OR

(i) Two balloons rubbed with a woolen clothes are brought near each other. What would happen and why?

(ii) Why do all the objects fall towards the Earth? Does the Earth pull every object with equal force?

(iii) Three objects, 1, 2, and 3 of the same size and shape but made of different materials, are placed in the water. They dip to different depths as shown in the figure.



If the weights of the three objects 1, 2, and 3 are W1, W2, and W3, respectively, then Write the weight of the objects in increasing order.

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