



INDIAN SCHOOL SALALAH

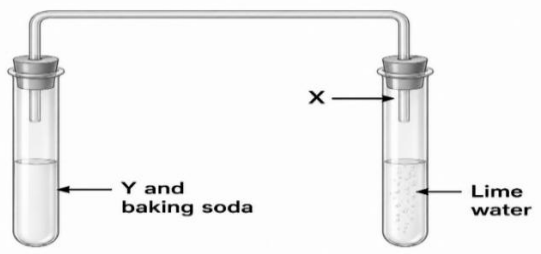
ACADEMIC YEAR 2026 – 2027



Roll No:					Assessment Type: FIRST TERM EXAMINATION SEPTEMBER - 2026
Grade: VII					
Subject: SCIENCE (086)					
Date of Assessment: 23/09/2026	Maximum Marks: 80 Time: 3 Hours				

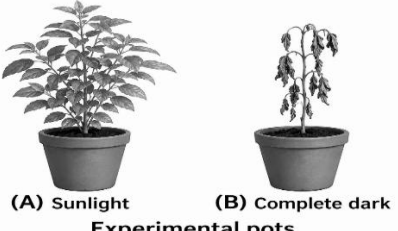
General Instructions:

- This question paper consists of **8** pages with **37** questions in all.
- All Questions are compulsory.**
- Questions 1 -12 in Section A are multiple choice questions. Each question carries 1 mark. You should select one most appropriate option out of the four provided.
- Questions 13-14 are assertion and reasoning, each carry 1 mark.
- Questions 15-24 in Section B carry 2 marks each.
- Questions 25-33 in Section C carry 3 marks each.
- Question 34 in Section D carry 4 marks.
- Questions 35 -37 in Section E carry 5 marks each.

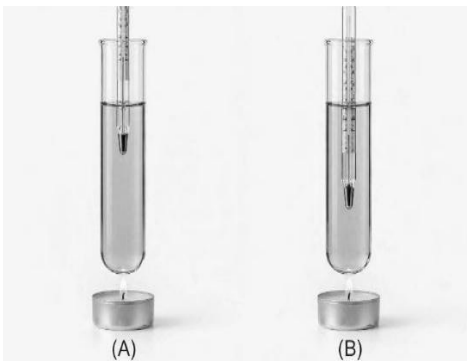
SECTION A		
1	When soil is too acidic, plants do not grow well in it. To improve its quality, what must be added to the soil? A. Organic matter B. Quicklime C. Vinegar D. Calamine solution	1
2	A solution changes the colour of turmeric indicator from yellow to red. The solution is A. Basic B. Acidic C. Neutral D. Both acidic and neutral	1
3	The given experimental setup shows that lime water turns milky in the presence of a gas X. Which of the following statements are incorrect regarding this experiment?  I. Y must be an acid like acetic acid. II. The process involves a physical change as there occurs only a change in the color of the original mixture. III. The gas X is hydrogen, which turns lime water into milky.	1

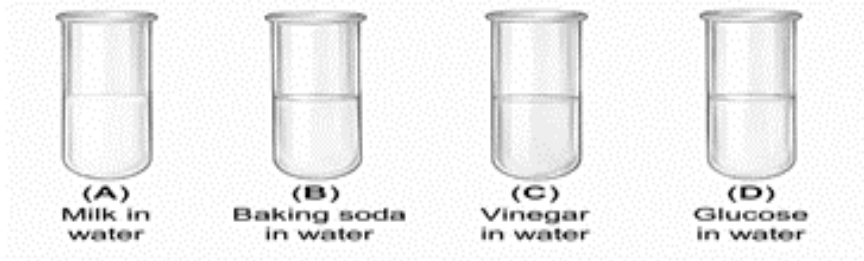
	A. I, II only C. III, I only	B. II, III only D. I, II, III	
4	Which one records the distance travelled by a vehicle? A. Speedometer C. Odometer	B. Manometer D. Barometer	1
5	The maximum speed of a car is 180 km/h. What is the maximum speed in m/s? A. 20 B. 30 C. 50 D. 60		1
6	The SI unit of speed is A. km/h B. m/s C. m/min D. km/min		1
7	Which of the following are true when milk changes into curd? i. Its state is changed from liquid to semi-solid. ii. It changes color. iii. It changes taste. iv. The change cannot be reversed. Choose the correct option from the below. A. (i) and (ii) are correct. B. (ii) and (iii) are correct. C. (i) and (iv) are correct. D. (i), (iii) and (iv) are correct.		1
8	A science teacher of class 7, burnt a magnesium ribbon. Then, A. A white-colored ash is produced at the end of experiment, and it is an irreversible change. B. A black-colored ash is produced at the end of experiment, and it is a reversible change C. A red-colored ash is produced at the end of the experiment, and it is a reversible change. D. A blue-colored ash is produced at the end of experiment, and it is an irreversible change.		1
9	While stirring hot soup, Sneha notices that the metal spoon in her hand also becomes hot after some time. By which mode of heat transfer does the spoon become hot? A. Convection B. Radiation C. Conduction D. Reflection		1
10	Neha passed by a dairy factory on her way to school. She wondered, what is the equivalent of a food factory in plants? Help her identify the correct plant part. A. Root B. Leaf C. Flower D. Seed		1
11	Presence of starch in leaves is indicated by A. Safranin test B. Copper sulfate test C. Iodine test D. Lime water test		1
12	Tiny pores present mainly on the surface of leaves are called A. Lenticels B. Stomata C. Root hairs D. Veins		1

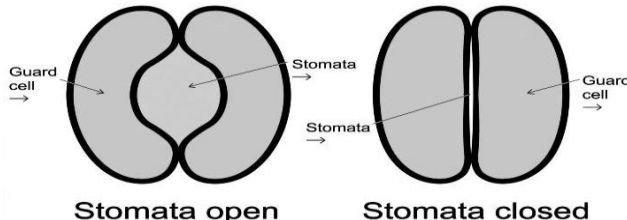
	The following two questions consists of two statements – Assertion (A) and Reason (R). Answer this question by selecting the appropriate option given below: A. Both A and R are true, and R is the correct explanation of A. B. Both A and R are true, and R is not the correct explanation of A. C. A is true but R is false. D. A is false but R is true.	
13	Assertion: Wearing white clothes in summer helps keep the body cooled. Reason: White clothes trap air and produce heat.	1
14	Assertion: Burning of plastic is a chemical change. Reason: During burning, a new substance is formed.	1
	SECTION B	
15	A. After carrying out the neutralization reaction, the test tube immediately found to be somewhat hot. Explain why? B. While playing in park, a child was stung by a red ant, some elders suggested applying paste of baking soda and others lemon juice as remedy. Which remedy do you think is appropriate and why?	2
16	A. Write the characteristics of acids by which we can identify them. B. Habib mixed grape juice with red rose extract, and the mixture obtained a red. What will happen if baking soda is added to this mixture? Justify your answer.	2
17	A. Using scientific reasoning, explain why two thin blankets provide more warmth than one thick blanket. B. Why are hollow bricks used to construct the outer walls of houses in hot regions?	2
18	Sarah went on a vacation with her family for a few weeks and forgot to tell the caretaker to water the plant pots. When they returned, she noticed that the plants in their balcony appeared pale and unhealthy with wilted leaves, even though the plants were kept in sunlight. Sarah wondered, what may have caused this? A. Which life process in plants is mainly affected when water is not supplied? B. Name the structure through which water reaches the leaves. C. Even though sunlight was available, why did the plants show poor growth? D. Roots absorb minerals from the soil along with water. Can you tell why these minerals are important for plant?	2
19	A. Does the broad and flat structure of leaves make the plants more efficient for photosynthesis? Justify your answer. B. Why do we decolorize the leaf at the beginning of the activity to estimate the presence of starch?	2

20	Krishna set up an experiment with two potted plants of same size and placed one of them in sunlight and the other one in a dark room, as shown in the figure.  (A) Sunlight (B) Complete dark Experimental pots Answer the following questions. 1. What idea might she be testing through this experiment? 2. What are the visible differences in plants in both conditions? 3. According to you, leaves of which plants confirm the iodine test for the presence of starch?	2
21	A runner completes 400 metres in 50 seconds. Another runner completes the same distance in 45 seconds. Who has a greater speed and by how much?	2
22	Last Sunday, Priyanka decided to go outside with her family for a dinner in some particular restaurant. Then she thought to go by her own car. So while moving, she increased the speed of the car from 36 km/h to 54 km/h. All of a sudden, a rickshaw came in front of her car, but by applying brakes at the right time both of them were saved from meeting with an accident. i. Calculate the increase in the speed of a car in terms of m/s. ii. Mention a positive action performed by Priyanka here.	2
23	A. Is rusting a physical or chemical change? Justify your statement. B. Define ignition temperature.	2
24	A. Abhijit heated a substance 'X' in the flame of a candle. During burning, the substance produced a bright, dazzling white light and left behind a white powdery ash. 1. Identify substance 'X'. 2. Name the substance formed after 'X' is completely burnt. B. Write two examples for desirable changes.	2
SECTION C		
25	A. A group of students went to a nearby agricultural field that had a partition in the middle. They noticed that the plants were not showing proper growth. They collected the samples of soil from the left and right sides of the partition and prepared sample solutions marked A and B respectively. Red rose extract is used	3

	as an indicator to test the nature of both solutions, and the following results are obtained. 1. Solution A changed the color of the red rose extract to a shade of red. 2. Sample solution B changed the color of red rose extract to green. Based on results, what inference can be drawn about the nature of soil in both samples and what remedy do you suggest? B. While working on a science experiment in the lab, Suresh found a bottle labelled "unknown liquid." He thought it might be an acid, but Raj, suggested they should taste it to find out. But Seeta was hesitated to do so. Why should they avoid tasting the unknown liquid? And what can be another method to test the nature of the liquid?	
26	A. A rocky mountain undergoes continuous changes due to variations in temperature. The roots of trees growing into the cracks of the rocks also widen these cracks. During cold weather, water trapped in the cracks freezes and expands, causing the rocks to break into smaller pieces. These small rock particles are carried away by rivers and finally deposited in seas and oceans, where they form layers of sediments. i. Name the process responsible for the breaking down of large rocks into smaller pieces. ii. Identify the process involved in the transportation of rock particles by flowing rivers. iii. State the result of the deposition of these rock particles in seas and oceans. B. Identify three chemical changes from below: Ripening of fruits, melting of ice, breaking of glass, decomposition of plant and animal dead bodies in soil, cutting of wood, respiration.	3
27	A. When carbon dioxide gas is passed into a solution containing calcium, forms white insoluble substance. Name the solution and also the white insoluble substance formed in this chemical change. B. State the three essential conditions that must be fulfilled for a combustion reaction to occur. C. Paper does not burn when kept in the air for a long time. But it burns quickly when a burning matchstick is brought near to it. What condition is fulfilled by the burning matchstick?	3

28	A. A smoke detector is designed to detect smoke and trigger an alarm. If you are installing one in a room, where should it ideally be placed for effective detection and why? a: near the floor. b: in the middle of wall. c: on the ceiling. d: near the door. B. Two test tubes with water are heated by a candle flame as shown in figure below.  Which thermometer will record a higher temperature and why? Explain.	3
29	A. Ravi wears a black T-shirt in summer and feels hotter than his friend wearing a white shirt. Explain the reason. B. Differentiate between convection and conduction. (Mention two points each)	3
30	A. In an experiment, germinating moong bean seeds are placed on moist cotton inside a conical flask and connected to a test tube containing lime water. The setup is left undisturbed in the dark for 24 hours. After some time, the lime water turns milky. (a) State the conclusion drawn from the change observed in the lime water. (b) What is the purpose of keeping the setup in the dark for 24 hours. B. State the function of xylem in a plant.	3
31	A. A simple pendulum completes 30 oscillations in one minute. Find its time period. If the length of the pendulum is increased, what will happen to the time period? B. In the following, how will you decide between two objects, which one is moving faster? i. If both travel equal distances in different times. ii. If both travel different distances in equal time.	3
32	A. Define time period. B. The speedometer shows 40 km/h speed at a particular instant. Does it mean the vehicle travelled 40 kilometers?	3

	C. Name the two types of clocks used in earlier times.	
33	A. Mention the role of phloem in a plant. B. Describe an activity that provides evidence for the release of oxygen during photosynthesis.	3
	SECTION D	
34	Case study: A new township is built with many houses, concrete roads, parking areas, and tiled pavements. Within two years, residents report that wells and hand pumps are drying up. A scientific survey reveals that most rainwater flows away through drains rather than seeping into the ground. The soil under the township has a tiny exposed surface area for water to infiltrate and recharge the groundwater. Questions. - Why is infiltration reduced in the township? - How does reduced infiltration affect groundwater levels in wells and hand pumps? <u>Answer either 3A or 3B</u> A. Suggest two methods the township can adopt to recharge groundwater. OR B. - What are aquifers? - Explain why soil with larger pore spaces improves infiltration.	4
	SECTION E	
35	A. An experiment was set up with onion extract strips. Strip A was treated with tamarind water and Strip B with baking soda solution. Predict the odour changes in these two strips. B. Study the figure below, which shows different solutions placed in test tubes A, B, C, and D. Predict the color change that will occur when a piece of red litmus paper is placed in each test tube. Record your observations.  (A) Milk in water (B) Baking soda in water (C) Vinegar in water (D) Glucose in water C. The student of class 7 tested the nature of three household substances, P, Q, and R, using red and blue litmus papers. The observations are as follows. P turns red litmus paper into blue.	5

	- Q turns blue litmus paper into red. - R gives no color change in any of the litmus papers. i. Which of these substances is likely to contain lactic acid and why? ii. Turmeric is a natural acid-base indicator. Which of the given substances cannot be distinguished using the turmeric indicator? Explain your answer briefly.																			
36	A. X is broken down by reacting with Y to release carbon dioxide and Z and energy. X, Y, and Z are three different components of the process. What do X, Y, and Z stand for? $X + Y \longrightarrow \text{Carbon dioxide} + Z + \text{Energy}$ B. The image shows the structure of stomata on the leaf. What will be the likely effect on the plant if stomata remain closed for a prolonged period of time?  C. Write an activity to test the presence of starch in a leaf. D. Krishna says that plants do not respire because they remain fixed in one place. Is Krishna's statement, correct? Give a reason to support your answer.	5																		
37	A. Differentiate between uniform motion and non-uniform motion. B. Data for an object covering distances in different intervals of time are given in the following table. If the object is in uniform motion, fill in the gaps in the table. <table border="1" data-bbox="226 1386 1323 1549"><tr><td>Time(s)</td><td>0</td><td>10</td><td>20</td><td>30</td><td>A</td><td>50</td><td>B</td><td>70</td></tr><tr><td>Distance (m)</td><td>0</td><td>8</td><td>C</td><td>24</td><td>32</td><td>D</td><td>48</td><td>56</td></tr></table> C. A vehicle travels along a straight road and covers a total distance of 3 km. During the first 1 km, it travels at a speed of 10 m/s, and during the next 1 km, it travels at a speed of 20 m/s. With what speed should it travel the remaining distance so that the entire journey is completed in 160 s? Also, calculate the average speed of the vehicle for the entire journey.	Time(s)	0	10	20	30	A	50	B	70	Distance (m)	0	8	C	24	32	D	48	56	5
Time(s)	0	10	20	30	A	50	B	70												
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