

**VIKAS BHARATI PUBLIC SCHOOL**  
**SAMPLE PAPER (SESSION 2025-26)**  
**CLASS: VII**  
**SUBJECT: SCIENCE**

**Time: 2 hours 30 minutes.**

**M.M: 60**

Note: 1. This question paper contains 4 printed pages and 22 questions.  
2. Over attempted questions will not be evaluated.  
3. Read the instructions carefully before attempting all the sections.  
4. For multiple choice questions both the option no. and the statement must be written.

<b>SECTION -A</b>			
<b>All questions are compulsory.</b>			
1.		Choose the correct option for the given statements.	
	a)	<p>A person is eating a piece of dry toast. They use their front teeth to bite off a piece, but then move the toast to the back of their mouth to turn it into a soft paste before swallowing.</p> <p>Identify the two types of teeth working together at the back of the mouth.</p> <p>(i) canines and incisors      (ii) molars and premolars          (iii) incisors and molars      (iv) premolars and canines.</p>	1
	b)	<p>A hiker is resting in a high-tech, multi-layered sleeping bag during a peaceful snowy trek. This setup keeps the hiker warm because:</p> <ul style="list-style-type: none"> <li>i) The fabric of the sleeping bag generates its own electricity to create heat.</li> <li>ii) Air trapped between the fibers and layers of the bag is a poor conductor of heat, preventing body warmth from escaping.</li> <li>iii) The sleeping bag is made of metal fibers that conduct heat from the ground.</li> <li>iv) The mountain air is naturally warmer than the hiker's body temperature.</li> </ul>	1
	c)	<p>Which of the following observations is the most definitive evidence that a chemical change has occurred?</p> <ul style="list-style-type: none"> <li>i) A solid has turned into a liquid.</li> <li>ii) The shape of the object has changed.</li> <li>iii) A gas is evolved and a new odour is produced.</li> <li>iv) The substance has been mixed with water.</li> </ul>	1
	d)	<p>A student has three test tubes containing unknown liquids. He only has a turmeric indicator. He observes:</p> <ul style="list-style-type: none"> <li>•Test Tube A: Indicator remains yellow.</li> <li>•Test Tube B: Indicator turns brick red.</li> <li>•Test Tube C: Indicator remains yellow.</li> </ul> <p>To distinguish between A and C, he adds a drop of liquid from B into both. Liquid A now turns the red indicator back to yellow, but C remains red. What is Liquid A?</p> <ul style="list-style-type: none"> <li>i) A base (ii) An acid (iii) Distilled water (iv) Common salt solution</li> </ul>	1

	e)	Bryophyllum is a unique plant because it can reproduce through its: i) roots when they touch the ground. ii) flowers through cross-pollination. iii) leaves, which develop small buds along their margins. iv) stems through the process of grafting.	1
	f)	After fertilization, several changes occur in a flower to produce a fruit. Which of the following parts is correctly matched with its future form? i) ovule → fruit ii) ovary → seed iii) ovule → seed iv) petals → protective cover	1
	g)	If the xylem of a plant is mechanically blocked, which of the following will be the first visible symptom? i) The roots will rot immediately. ii) The fruit will become sweeter. iii) The leaves will start wilting even if the soil is moist. iv) The plant will grow taller rapidly.	1
	h)	Forests are often called 'Green Lungs' of nature. Why is this analogy used? i) because plants release oxygen and maintain the balance of oxygen and carbon dioxide. ii) because they are green in colour like healthy lungs. iii) because they store water like a sponge. iv) because they prevent soil erosion.	1
	i)	Which of the following is an 'On-site Sewage Disposal' system suitable for places without a sewer network? i) clarifier (ii) open drainage (iii) bar screen (iv) septic tank	1
	j)	A student measures the distance-time graph of a toy car and gets a straight line that is not parallel to either axis. What can be concluded about the car's speed? i) The car is moving with a constant speed. ii) The car's speed is increasing. iii) The car is moving in a circular path. iv) The car is at rest.	1
2.		Complete the analogy: a) Stomach : Hydrochloric acid :: Small Intestine : _____ b) Cutting of wood : Physical Change :: Burning of wood :	2
3.		Give one term for the following: a) The rhythmic contraction and relaxation of the heart muscles. b) The fusion of male and female gametes to form a zygote. c) Substances that change colour when added to an acidic or basic solution	3
4.		Identify the error and rewrite the correct statement. a) Phenolphthalein turns blue when added to a basic solution. b) The seeds of maple and drumstick are dispersed by water because they have wings. c) The time period of a given pendulum is not constant and changes with every oscillation. d) The distance-time graph for an object moving with a non-uniform speed is a straight line.	4

5.		Instead of being thrown away, the solid waste settled at the bottom of a sewage tank is treated and used by farmers to help plants grow. Identify this material.	1
		<b><u>SECTION -B</u></b> <b>Attempt any SIX parts from Section B.</b>	
6.		Why do we prefer two thin blankets joined together over one thick blanket during peak winter?	2
7.		A person has a habit of eating very quickly without chewing. How will this affect their digestion process?	2
8.		a) Classify as physical or chemical change: (a) Dissolving sugar in water      (b) Photosynthesis. b) Explain why stretching a rubber band is a physical change even though its shape changes.	1+1
9.		Compare the functions of arteries and veins. Why do veins have valves?	2
10.		What is periodic motion? Give one example from nature.	2
11.		A group of students is observing tall trees in a dense forest and notices that different parts of the trees play distinct roles in providing shelter, shade, and support to birds and insects. (a) Name and explain the part of a forest tree that consists of branches and leaves at the top. (b) What term is used for the continuous layer formed when the upper parts of many trees overlap in a forest?	2
12.		While travelling in a car on a long journey, a driver notices two meters on the dashboard—one shows how fast the car is moving at a particular moment and the other records the total distance covered during the trip. Identify these two instruments.	2
		<b><u>SECTION -C</u></b> <b>Attempt any FOUR parts from Section C.</b>	
13.		a) Why is it necessary to excrete waste products from the body? b) What is the significance of the partition wall (septum) in the human heart? c) Name the tissue responsible for: (a) Transport of water (b) Transport of food in plant	1+1+1
14.		Two friends start from the same point. Friend A covers 10 meters in 5 seconds, and friend B covers 20 meters in 12 seconds. Who is faster? Show calculations.	3
15.		a) If forests disappear, the amount of carbon dioxide in the air will increase. What is the consequence of this on the Earth's temperature. b) How do forests maintain the balance between oxygen and carbon Dioxide?	1+2
16.		A student observes different living organisms during breathing and notes that the mechanism of breathing varies with body structure. The student also notices changes in the chest region while breathing in humans. (a) During breathing out, what changes occur in the ribs and diaphragm of a human being? (b) Some organisms do not have lungs. Explain how the following	1+2

		<p>organisms carry out respiration:</p> <ul style="list-style-type: none"> <li>(i) Earthworm</li> <li>(ii) Cockroach</li> </ul>		
17.		What are 'active sludge' and 'biogas'? How is biogas utilised in a waste water treatment plant?	3	
		<p><b><u>SECTION -D</u></b></p> <p><b>Attempt any THREE parts from Section D.</b></p>		
18.		<p>a) If a distance time graph shows a curved line instead of a straight line, what type of motion is the car performing? Define it.</p> <p>b) The odometer of a car reads 57321.0 Km when the clock shows 08:15 AM. At 08:40 AM the odometer reading has changed to 57336.0 Km. Calculate the speed of the car in km/min during this time. Express the speed in km/h</p>	1+3	
19.		<p>a) Explain the relationship between sanitation and disease. Name two water-borne diseases.</p> <p>b) You can be a conscious citizen to reduce waste. List four practices you can adopt at home to minimize the load on the sewerage system.</p>	2+2	
20.		<p>a) Paheli while moving in a forest observed that there was no noise pollution, though lots of heavy vehicles were passing from the nearby highway. Explain why?</p> <p>b) Deforestation may lead to floods. Why?</p> <p>c) Name any 2 useful products other than wood, which we get from forests.</p>	1+2+1	
21.		<p>a) What are the different types of inorganic and organic impurities generally present in sewage? (Name two each).</p> <p>b) The terms sewage, sewers and sewerage are interlinked with each other. Can you explain, how?</p>	2+2	
		<p><b><u>SECTION -E</u></b></p>		
22.		<p>Sneha is a long-distance runner. During a 10 km marathon on a hot, humid day, she noticed her skin turning red and her heart beating very fast. After crossing the finish line, she felt dizzy and noticed white crusty patches on her T-shirt.</p> <p>a) Why does the heart rate increase significantly during running?</p> <p>b) What are the white patches on Sneha's clothes, and which system of the body is responsible for this?</p> <p>c) Mention two functions of sweating in the human body.</p>	1+2+1	