

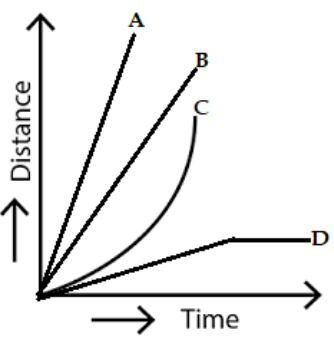
**Vikas Bharati Public School**  
**Sample paper (Session 2024-25)**  
**Class: VII**  
**Subject: Science**

**Time: 2 hours 30 minutes**

**M.M: 60**

- Note:** 1. This question paper contains 4 printed pages.  
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 and the statement must be written.

|           |           |   |          |
|-----------|-----------|---|----------|
|           |           | <b><u>SECTION -A</u></b>  |          |
|           |           | <b>All questions are compulsory.</b>  |          |
| <b>1.</b> |           | <b>Choose the correct option.</b>   |          |
|           | <b>a)</b> | If a person's kidneys stop functioning, what immediate effect will it have on their body<br><br>(i) Blood circulation will increase                      (iii) Toxins will accumulate in the body<br>(ii) Respiration will stop                                      (iv) Digestion will speed up                 | <b>1</b> |
|           | <b>b)</b> | Which of the following is a good conductor of heat?<br>(i) plastic              (ii) copper              (iii) wood              (iv) air   | <b>1</b> |
|           | <b>c)</b> | What is formed when an acid reacts with a base?<br>(i) water and salt              (ii) hydrogen gas              (iii) oxygen gas              (iv) alcohol  | <b>1</b> |
|           | <b>d)</b> | The ozone layer in the upper atmosphere of Earth absorbs most of the<br>(i) infrared radiations                      (ii) infrasonic radiations<br>(iii) ultraviolet radiations                      (iv) ultrasonic radiations   | <b>1</b> |
|           | <b>e)</b> | The process of breakdown of food to release energy is called<br>(i) photosynthesis              (ii) respiration              (iii) digestion              (iv) excretion   | <b>1</b> |
|           | <b>f)</b> | Which digestive system organ is responsible for absorption of nutrients in humans?<br>(i) large intestine              (ii) stomach              (iii) small intestine              (iv) liver  | <b>1</b> |
|           | <b>g)</b> | If a plant's flower is removed before pollination, what will most likely happen?<br>(i) It will produce seeds through vegetative propagation<br>(ii) It will not produce seed<br>(iii) It will undergo self-pollination.<br>(iv) It will grow faster  | <b>1</b> |
|           | <b>h)</b> | The cell which is formed after fusion of gametes is called _____.<br>(i) spore              ii) embryo              (iii) pistil              (iv) zygote   | <b>1</b> |
|           | <b>i)</b> | What role do canopy and understorey layers of a forest play in maintaining biodiversity?<br>(i) They block sunlight and prevent photosynthesis.<br>(ii) They provide diverse habitats for different species.<br>(iii) They reduce the oxygen supply in the forest.<br>(iv) They prevent the growth of tall trees. | <b>1</b> |

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|    | j) | If a car's speed-time graph is a horizontal straight line, what can we infer?<br>(i) The car is stationary<br>(ii) The car is accelerating<br>(iii) The car is moving at constant speed<br>(iv) The car is decelerating  | 1   |
| 2. |    | <b>Identify the following:</b><br>a) Enzyme in saliva that helps in digestion of starch.<br>b) The instrument used to measure the body temperature.<br>c) Organ that pumps blood in mammals.<br>d) The acid present in citrus fruits like lemons and oranges.<br>e) Finger like projections in small intestine that helps in absorption of nutrients.                        | 5   |
| 3. |    | <b>Complete the analogy:</b><br>a) Plants : stomata :: earthworms : _____<br>b) Pollination : transfer of pollen grains :: _____ : Fusion of male and female gametes   | 2   |
| 4. |    | <b>Identify the error and rewrite the statement:</b><br>a) A simple pendulum is an example of circular motion.<br>b) The colour change in copper sulphate solution when iron is dipped into it is an example of a physical change.   | 2   |
| 5. |    | <b>Find the odd one out and give reason:</b><br>bar screens<br>grit and sand removal tank<br>chlorination<br>sedimentation.  | 1   |
|    |    | <b><u>SECTION -B</u></b><br><b>Attempt any SIX parts from Section B.</b>   |     |
| 6. | a) | Convert 68 °F to °C.   | 2   |
|    | b) | What are indicators? What is effect of phenolphthalein on acids and bases.   | 2   |
|    | c) | (i) Define crystallisation.<br>(ii) Is crystallisation a physical change or a chemical change? Give reason for your answer.  | 1+1 |
|    | d) | (i) Write chemical formula of<br>A. Nitric acid      B. Potassium hydroxide<br>(ii) Identify the name of the elements.<br>A. Cu                      B. Zn   | 2   |
|    | e) |  <p>(i) Observe the distance time graph for the motion of four vehicles A, B, C and D and answer the following questions.<br/>(a) Which vehicle is moving with non-constant speed?<br/>(b) Which type of motion is depicted by vehicles A and B?</p> <p>(ii) Name two ancient clocks.</p> | 2   |

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|           | <b>f)</b> | Forests is a 'dynamic living entity'. Justify the statement.  | <b>2</b>     |
|           | <b>g)</b> | Give two examples to show that plants depend on animals.  | <b>2</b>     |
|           |           | <b><u>SECTION -C</u></b><br><b>Attempt any FOUR parts from Section C.</b>   |              |
| <b>7.</b> | <b>a)</b> | (i) Why do we get instant energy form glucose?<br>(ii) How is food prevented from entering the windpipe?<br>(iii) Define assimilation.  | <b>3</b>     |
|           | <b>b)</b> | (i) List two products which we get from forests.<br>(ii) Why is there no waste in the forest?   | <b>1+2</b>   |
|           | <b>c)</b> | A truck covers 90 km in 1.5 hours. If the truck moves at the same speed, how far will it travel in the next 3 hours?  | <b>3</b>     |
|           | <b>d)</b> | The odometer of a vehicle reads 26743 km at 10:00 AM and 26759 km at 10:30 AM.<br>(i) Find the distance covered by the vehicle.<br>(ii) Calculate the speed in km/min.<br>(iii) Convert the speed to km/h.  | <b>3</b>     |
|           | <b>e)</b> | (i) Why does the forest floor seem to be dark-coloured?<br>(ii) Why even after heavy rainfall water do not stagnate in the forest?  | <b>1+2</b>   |
|           |           | <b><u>SECTION -D</u></b><br><b>Attempt any THREE parts from Section D.</b>  |              |
| <b>8.</b> | <b>a)</b> | List the similarities and differences between aerobic and anaerobic respiration.  | <b>4</b>     |
|           | <b>b)</b> | What is the function of the following:<br>(i) xylem (ii) phloem (iii) root hair (iv) heart  | <b>4</b>     |
|           | <b>c)</b> | (i) How is seed dispersal helpful for plants? (3 points)<br>(ii) Draw labelled diagram to show reproduction in yeast cells?   | <b>3+1</b>   |
|           | <b>d)</b> | (i) Bojhoo wants to know why flowers are generally so colourful and fragrant?<br>(ii) What is meant by fertilization? Show the process of fertilization with the help of a labelled diagram.  | <b>1+3</b>   |
|           |           | <b><u>SECTION -E</u></b>  |              |
| <b>9.</b> |           | Rampur, a small village near the banks of the Ganga, had long struggled with sanitation. Most houses lacked proper toilets, and wastewater from kitchens and open drains flowed into nearby ponds and fields. During monsoons, the stagnant water became a breeding ground for mosquitoes, leading to frequent cases of diarrhoea, cholera, and dengue. The villagers, unaware of proper sewage disposal methods, continued dumping wastewater in open areas. This contaminated their groundwater, making even the hand pump water unsafe for drinking. | <b>2+1+1</b> |

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|  |  | <p>(i) Untreated human excreta is a health hazard. Justify the statement.</p> <p>(ii) Name two low cost onsite sewage disposal systems.</p> <p>(iii) Mention one action that you can take as an active citizen to improve sanitation and hygiene in your community.</p> |  |
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