Directorate of Education, GNCT of Delhi
Annual Examination Practice Paper (Session: 2025-26)
Class: VII; Subject: SCIENCE (086)

Duration: 2.30 hours **Maximum Marks: 60**

General Instructions:

1. All questions are compulsory.
2. This question paper consist Section A, B, C, D and E. Marks are indicated against each question.
3. Section A (Q.No.1,I-XII) consists of multiple-choice questions.
4. Section B (Q.No.2-5) consists ofvery short answers questions of 2 marks each.
5. Section C (Q.No.6-8) consists of short answer questions of 3 marks each.
6. Section D (Q.No.9-11) consists of long answer questions of 5 marks each.
7. Section E (Q.No.12-15) consists of case based or source-based questions having three subparts each.
8. There is no overall choice. However, internal choice is given in some of the questions. Only one of the choices in such questions has to be attempted.

Section A		
Q.No.	Question	Marks
1.	From Question I-XII, choose the correct option.	
I	In the presence of sunlight ,which of the following is necessary for photosynthesis in plants? A) Oxygen and water B) Carbon dioxide and nitrogen C) Nitrogen and oxygen D) Carbon dioxide and water	1
II	Deforestation can lead to: A) Decrease in earth's temperature B) Increase in rainfall C) Flood and soil erosion D) More oxygen in the atmosphere	1
III	Which of the following is not a physical change? A) Curding of milk B) Freezing of water C) Dissolving sugar in water D) Melting of wax	1
IV	Which part of the flower becomes the fruit after fertilization? A) Ovary B) Ovule C) Stigma D) Anther	1
V	Untreated sewage should not be released directly into rivers because it:	1

	A) Increase oxygen level in river water B) Pollutes water and kills aquatic life C) Kills harmful bacteria D) Improves the water quality	
VI	The function of fuse in an electric circuit is: A) To increase electric current B) To break the circuit when current is too high C) To measure current D) To store electric energy	1
VII	Humus is formed by the: A) Mixing of sand and clay B) Decomposition of plant and animal remains C) Evaporation of water from soil D) Photosynthesis in green plants	1
VIII	When a copper metal wire is heated at one end, the other end becomes hot due to: A) Convection B) Radiation C) Conduction D) Reflection	1
IX	Which of the following is not the example of low-cost onsite sewage disposal system to improve sanitation: A) Septic tank B) Chemical toilets C) Open drain system D) Composting pits	1
X	Battery is a combination of two or more cells wherein: A) Positive terminal of one cell is connected with positive terminal of next cell. B) Negative terminal of one cell is connected with negative terminal of next cell. C) Positive terminal of one cell is connected with negative terminal of next cell. D) Cells are not connected with each other.	1
XI	The solid material that settles down at the bottom of a sedimentation tank is called: A) Compost B) Scum C) Sewage D) Sludge	1
XII	When carbon dioxide is passed through lime water, the compound formed which makes lime water milky is: A) Copper sulphate	1

	B) Baking soda C) Calcium hydroxide D) Calcium carbonate	
	Section B	
2.	Attempt either (A) or (B). A. Define symbiosis.Why is the rhizobium–legume plant association called symbiotic? OR B. Give one example of the following: (i) A parasitic plant (ii) An insectivorous plant (iii) A saprotroph (iv) A heterotroph	2
3.	Why flowers are considered as the reproductive organs of plants? How method of asexual reproduction in *Bryophyllum* is different from that of *Spirogyra*?	2
4.	Attempt either (A) or (B). A. What is an indicator? Write any two examples of natural indicators present around us. OR B. How does phenolphthalein help us in identifying acidic and basic solution?	2
5.	What is non-uniform motion? Calculate the time taken by a car to cover a distance of 120 kilometres if it moves with a uniform speed of 45 km/h?	2
	Section C	
6.	Attempt either (A) or (B). A. Give reasons: (i). In *Amoeba*, the digestive juices are secreted into the food vacuole. (ii) Villi are present in small intestine but not in stomach. (iii) The inner lining of stomach remains protected from the damage caused by the hydrochloric acid. OR B. Why do grazing animals like cows and deer are called ruminants? What makes cellulose difficult for humans to digest, unlike ruminants who can digest it easily?	3
7.	Compare linear, circular, and oscillatory motion in a tabular form with suitable examples.	3
8.	Attempt either (A) or (B). A.Describe the differences in heat transfer mechanisms between conduction, convection, and radiation. Give real-life examples for each. OR B.A clinical thermometer cannot be used to measure the	3

<table>
<tr><td></td><td>temperature of hot coffee, while a laboratory thermometer can. Explain the differences between the two and justify why laboratory thermometer is suitable for it and not the clinical thermometer?</td><td></td></tr>
<tr><td colspan="3">Section D</td></tr>
<tr><td>9.</td><td>Complete the given sentences (Choose from the options given)
i. Digestion of food is an example of a _____ (chemical/physical) change.
ii. For rusting, the presence of both water and _____ (hydrogen/oxygen) is essential.
iii. In a reaction between copper sulphate and iron, the change of colour of solution from blue to green is due to the formation of _____ (iron sulphate/iron oxide).
iv. Properties such as shape, size, colour and state of a substance are called its_____ (physical/chemical) properties.
v. The process of depositing a layer of zinc on iron is called _____(crystallisation/galvanisation).</td><td>5</td></tr>
<tr><td>10.</td><td>Match the Columns.<table><tr><th>Column A</th><th>Column B</th></tr><tr><td>1. Capillaries</td><td>A. Liquid part of blood</td></tr><tr><td>2. Urethra</td><td>B. Carries food in plants</td></tr><tr><td>3. Plasma</td><td>C. Releases urine outside</td></tr><tr><td>4. Transpiration</td><td>D. Connect arteries & vein</td></tr><tr><td>5. Phloem</td><td>E. Loss of water in plants</td></tr></table></td><td>5</td></tr>
<tr><td>11.</td><td><u>Attempt either (I) or (II)</u>
(I). a) Differentiate between real image and virtual image. Which phenomenon enables us to see objects in a mirror?
b) Enlist any two properties of image formed by a plane mirror.
OR
(II). a) Why is a convex lens known as a converging lens and a concave lens known as a diverging lens? Explain with the</td><td>5</td></tr>
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	help of suitable diagram. b) Describe any two applications of concave mirror.	
	Section E	
12.	Many factories, especially chemical plants, produce wastewater that contains acidic substances. This wastewater, called acidic effluent, is harmful if released directly into rivers or soil. Therefore, most factories have a wastewater treatment unit. In this unit, the acidic effluent is carefully treated with base like sodium hydroxide before disposal. (a) Name the type of chemical reaction occurring during this waste water treatment. (b) Why is it necessary to treat the acidic effluent with base before release? Attempt either (c) or (d). (c) Write the general equation for the reaction between an acid and a base. OR (d) Explain why doctor prescribed you an antacid tablet when you suffer from acidity?	4
13.	A student decides to perform an experiment to understand how electric circuits work. She sets up a simple circuit using a battery, a bulb, and a switch. When she makes the switch in 'on' position, the bulb glows brightly. When she makes the switch 'off', the bulb immediately goes off. She also notices that the bulb only glows when the connections are properly made and the wires are intact. (a) Explain the role of the switch in the circuit. (b) What would happen if the filament in the bulb was broken? Attempt either (c) or (d). (c) Which effect of electric current is responsible for the heater's wire glowing? Name any two factors on which the amount of heat produced in a wire depends upon? OR (d) Describe any two applications of magnetic effect of current.	4
14.	During annual sport meet, Yogesh runs fast in 100 meters race event. After finishing the race, his heartbeat increases and he starts breathing heavily and feel cramps in his leg. His sports teacher gives him massage and asks him to rest. (a) Why did Yogesh start breathing heavily after the race? (b) Which type of respiration occurred in Yogesh's leg muscles during race?	4

	Attempt either (c) or (d). (c) Name the substance responsible for muscle cramps. Why does this substance form during intense exercise? OR (d) Explain why certain organisms such as yeast are able to survive in the absence of oxygen?	
15.	The municipal corporation of a city installed a modern Waste Water Treatment Plant (WWTP) to clean the wastewater before releasing it into rivers. However, many local residents are unaware of the importance of proper waste disposal. They continue to throw household garbage, plastic bags, and leftover food into open drains. Over the time, these drains get clogged, and the water entering the sewage treatment plant contains large amounts of solid waste. This creates difficulties in treating the wastewater effectively, and untreated or partially treated water starts reaching nearby water bodies. (a) What is the role of anaerobic bacteria in WWTPs? (b) Write any two by-products of wastewater treatment. Attempt either (c) or (d). (c) Explain why awareness among the people is important for effective treatment of wastewater? OR (d) Suggest two measures to prevent water pollution.	4