

Directorate of Education, GNCT of Delhi
Mid Term Examination Practice Paper (Session: 2026-27)
Class: VII; Subject: SCIENCE (086)

Duration: 2.30 hours

Maximum Marks: 60

General Instructions:

1. All questions are compulsory.
2. This question paper consist of 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 of very 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	The yellow colour of turmeric powder turns red in: A) acidic solutions B) basic solutions C) both acidic and basic solutions D) neutral solutions	1
II	The motion of a simple pendulum is periodic in nature because: A) it never repeats its path. B) it moves only in a straight line. C) it repeats its path after a fixed interval of time. D) it stops moving after some time.	1
III	During a science seminar at school, two students are discussing body changes during adolescence. Which of the following statement is correct? A) All adolescents grow exactly at the same rate. B) Physical changes vary from person to person. C) Girls do not grow taller during adolescence. D) Boys and girls experience identical changes.	1
IV	The digested food in human beings is primarily absorbed through the walls of: A) Stomach B) Small intestine C) Large intestine D) Pancreas	1
V	During a class room activity, a student tests a liquid with blue	1

	litmus paper and the paper turns red. The liquid is most likely: A) Acidic B) Basic C) Neutral D) Pure water	
VI	During a school health camp, the students are advised to consume foods like spinach that are rich in iron: A) To prevent anaemia and help in blood formation B) To increase height instantly C) To improve eyesight D) To strengthen teeth only	1
VII	The SI unit of time is: A) minute B) second C) hour D) millisecond	1
VIII	Which of the following is required to break down glucose and release energy during respiration? A) Carbon dioxide B) Oxygen C) Water D) Sunlight	1
IX	Choose the correct statement regarding electric circuit: A) Electric current can flow through a circuit even if there is a break or gap in wire. B) In a circuit, electric current always flows from negative terminal to the positive terminal of the cell. C) The representation of an electrical circuit using symbols is called circuit diagram. D) A switch is the source of electric current in a circuit.	1
X	After an ant bite, it is always advised to apply a moist baking soda to the affected area because: A) Baking soda is acidic in nature. B) Baking soda is basic and helps neutralise the acidic effect. C) It reacts with the bite to produce strong acids. D) Baking soda cools the skin only.	1
XI	Which of the following process of heat transfer does not require a medium: A) Conduction B) Convection C) Radiation D) Both conduction and convection.	1
XII	If an object is moving along a straight line with a constant speed. The object is said to be: A) In uniform linear motion B) In non-uniform linear motion C) In oscillatory motion D) At rest	1

Section B								
2.	<u>Attempt either (A) or (B)</u> A. Define neutralisation reaction. What should a farmer do to reduce the basic nature of soil in his field and improve plant growth? OR B. Differentiate between natural and synthetic indicators.	2						
3.	Describe the importance of ‘switch’ in an electric circuit. Draw the symbol of an electric switch in “OFF” position.	2						
4.	<u>Attempt either (A) or (B)</u> A. Describe secondary sexual characteristics. What causes the development of secondary sexual characteristics during adolescence. OR B. Why is adolescence considered a transition period between childhood and adulthood?	2						
5.	Ravi, a 13-year-old, avoids games and exercise. He often feels tired and irritable. a. What problems is Ravi facing due to lack of exercise? b. Suggest two benefits he will gain if he starts exercising regularly.	2						
Section C								
6.	<u>Attempt either (A) or (B)</u> A. Give reasons: (i). Rubber gloves are worn by electricians during repairing of domestic electric circuit. (ii) Electric wires are made of copper but covered with plastic. (iii) The bulb does not glow when a wire of an electric circuit got broken. OR B. Classify the following material as conductor or insulator of electricity: <table><tr><td>(i) Wooden stick</td><td>(ii) Copper wire</td></tr><tr><td>(iii) Steel spoon</td><td>(iv) Plastic ruler</td></tr><tr><td>(v) Rubber band</td><td>(vi) Iron nail</td></tr></table>	(i) Wooden stick	(ii) Copper wire	(iii) Steel spoon	(iv) Plastic ruler	(v) Rubber band	(vi) Iron nail	3
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7.	How breathing is different from respiration? Describe the importance of gills as specialised structure in most of the aquatic animals like fishes.	3						
8.	<u>Attempt either (A) or (B)</u> A. Describe the time period of a simple pendulum. A simple pendulum takes 20 seconds to complete 10 oscillations. Calculate its time period.	3						

	OR B.A train covers a distance of 300 km in 6 hours. Calculate its speed in km/hr. Calculate the distance covered by the train in 12 hours if it continues to move with the same speed.															
Section D																
9.	Complete the given sentences (Choose from the options given) i. Distilled water is _____ (basic/neutral) in nature because it shows no change with litmus paper. ii. Orange juice is _____ (acidic/basic) in nature due to the presence of citric acid. iii. The substance commonly used as olfactory indicator is _____ (red rose/onion). iv. Acids are generally _____ (sour/bitter) in taste. v. Washing powder solution and _____ (lime water/lemon juice) turns red litmus paper to blue and hence are basic in nature.	5														
10.	Match the Columns <table><tr><th>Column A</th><th>Column B</th></tr><tr><td>1. Land breeze</td><td>A. Feeling warmth from fire</td></tr><tr><td>2. Conduction</td><td>B. Movement of cooler air from land to sea during night.</td></tr><tr><td>3. Convection</td><td>C. Heat transfer through direct contact</td></tr><tr><td>4. Condensation</td><td>D. Rising of hot air balloon</td></tr><tr><td>5. Radiation</td><td>E. Cloud Formation</td></tr><tr><td></td><td>F. Movement of cooler air from sea to land during day.</td></tr></table>	Column A	Column B	1. Land breeze	A. Feeling warmth from fire	2. Conduction	B. Movement of cooler air from land to sea during night.	3. Convection	C. Heat transfer through direct contact	4. Condensation	D. Rising of hot air balloon	5. Radiation	E. Cloud Formation		F. Movement of cooler air from sea to land during day.	5
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11.	<u>Attempt either (I) or (II)</u> (I). a) Differentiate between digestion and absorption? Why does the inner wall of the small intestine have many small finger-like projections? b) Which organ of human digestive system produces bile? Describe any one important function of bile. OR (II). a) How does the movement of ribs and diaphragm facilitate the movement of air during inhalation and	(3+2) =5														

	exhalation? b) Explain the role of alveoli in efficient exchange of gases in lungs?	
Section E		
12.	During a science activity session, a student was asked to draw a circuit diagram containing a combination of two cells, a switch and an electric bulb. Instead of drawing actual pictures, teacher instructed him to use electrical symbols while making circuit diagram. (a) What is the electric symbol of an electric bulb? (b) What is a combination of two or more cells called? <u>Attempt either (c) or (d).</u> (c) Draw the circuit diagram mentioned in the passage. OR (d) If a circuit diagram shows a cell, an ON switch, and a bulb, but the connecting wire are made of plastic threads, will the bulb glow? Why?	4
13.	Rajan, a 12-year-old student, prefers eating junk food like chips, burgers, and soft drinks for lunch every day. He tells his mother that since he is growing rapidly and playing sports, he just needs calories and doesn't need to eat traditional food like chapati, dal, rice, milk, salad and vegetables. (a) Why the use of fast food is not recommended as regular meal for Adolescents? (b) Adolescence is a stage of rapid growth. Therefore, which nutrient is most critical for building new muscles and repairing body tissues? <u>Attempt either (c) or (d).</u> (c) Write any two ways by which adolescents manage physical, emotional and behavioural changes effectively. OR (d) Why is balanced diet so important during adolescence?	4
14.	A remote village has a heavily deep community well for drinking water. Even during a minor drought, when a local river dries up, the well continues to provide clear cold water. The village elder explains that the well draws water from a vast underground reservoir stored in layers of permeable rock and soil. (a) What is the process of surface water seeping through soil and rocks known as? (b) Name the freshwater found trapped beneath the earth surface in the spaces of soil and rock?	4

	<u>Attempt either (c) or (d).</u> (c) Why does water drawn from a very deep aquifers usually look clean and clear compared to muddy surface puddles? OR (d) Describe any two ways that can be used to replenish depleted groundwater especially in urban areas?	
15.	Ajay is sitting in the front seat of his father's car during a highway road trip. He looks at the dashboard instrument panel and watches a needle fluctuating around the number 60. Right below it, a digital counter displays the total distance the car has travelled since it was manufactured. (a) Which instrument measures and displays the speed of a vehicle in km/hr? (b) If the vehicle's odometer reading is 3850 km at the beginning of a journey and 4120 km at the end. Calculate the total distance travelled during the trip. <u>Attempt either (c) or (d).</u> (c) Write any one example each of uniform and non-uniform motion from day-to-day life. OR (d) Distinguish between uniform and non-uniform motion using the example of Ajay's car moving on a straight highway with no traffic and when his car moving in city traffic.	4