



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

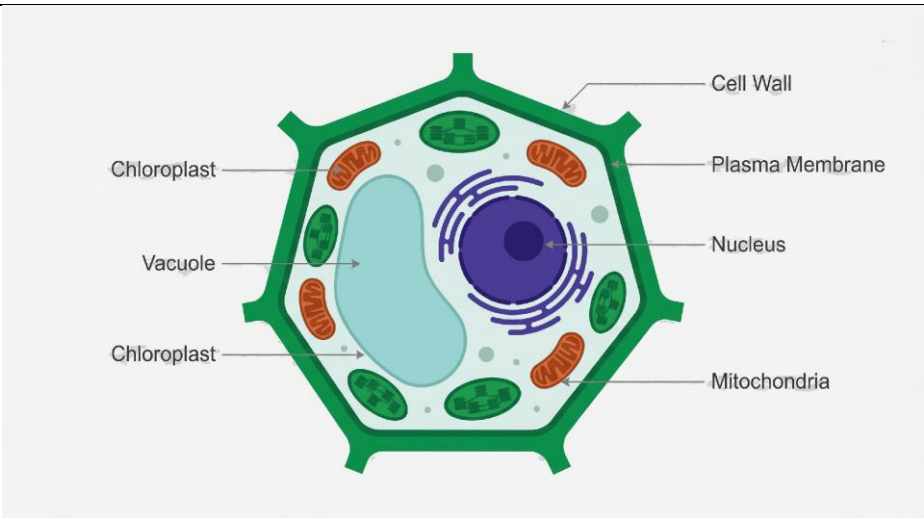


TERM 1 EXAM 2026-27 SCIENCE (SET II) MARKING SCHEME

Class: VIII
Date: 31.08.26

Time: 3 hours
Max Marks: 80

Section-A BIOLOGY		
1	a) Chloroplast	1
2	b) To carry messages quickly	1
3	a) Fungi	1
4	b) Diabetes	1
5	b) Vaccination	1
6	c) Hepatitis A	1
7	c) Parasitic worms	1
The following two questions consist of two statements – Assertion (A) and Reason (R). Answer these questions 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.		
8	Both A and R are true, and R is the correct explanation of A.	1
9	Both A and R are true, and R is the correct explanation of A.	1
10	Communicable Diseases Spread from one person to another. Do not spread from one person to another. Caused by microorganisms. Example: Cholera, Tuberculosis Non-communicable Diseases Do not spread from one person to another. Caused by genetic, lifestyle, or environmental factors. Example: Diabetes, Cancer	2

11	☐ Nucleus: Controls all the activities of the cell. ☐ Chloroplast: Contains chlorophyll and prepares food by photosynthesis.	2
12	Cell → Tissue → Organ → Organ System → Organism (Human Body)	2
13	 OR - Yeast. - The dough will not rise, and the bread will become hard and dense instead of soft and fluffy.	3
14	Fill in the missing steps in the flowchart given and name the diseases that spread this way. (a) Germs spread (b) Bites a healthy person (c) A healthy person gets infected	3
15	a) Disease-causing microorganisms are called pathogens . b) One way to protect food from contamination is to keep it covered . c) The students fell sick because harmful microorganisms contaminated the uncovered food. Eating the contaminated food caused food poisoning, leading to stomach pain, vomiting, and diarrhoea. OR Two precautions to prevent diseases caused by harmful microorganisms: - Eat fresh and covered food. - Wash hands before eating and after using the toilet.	1 1 2 2
16	Non-communicable diseases are diseases that do not spread from one person to another. They are caused by unhealthy lifestyle, genetic factors, or environmental conditions. Examples: Diabetes, cancer, heart disease. Ways to prevent them: - Eat a balanced diet. - Exercise regularly. - Avoid smoking and alcohol. - Get regular health check-ups.	5

	OR Antibiotic-resistant bacteria are formed when some bacteria survive after being exposed to an antibiotic. These bacteria have natural changes (mutations) or special genes that help them resist the medicine. The surviving bacteria multiply and pass this resistance to their offspring. Over time, more bacteria become resistant, making the antibiotic less effective.									
Section-B Chemistry										
17	b) Ask a scientific question	1								
18	c) A possible explanation that can be tested	1								
19	c) The flower is bright red.	1								
20	b) Diffusion	1								
21	b) Liquid	1								
22	c) There are large spaces between their particles.	1								
23	c) Condensation	1								
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24	Both A and R are true, and R is the correct explanation of A.	1								
25	It increases the accuracy and reliability of the results. It helps identify and reduce errors or unusual observations.	2								
26	<table border="1"><thead><tr><th>Observation</th><th>Inference</th></tr></thead><tbody><tr><td>Based on facts collected using senses or instruments.</td><td>A conclusion or explanation based on observations.</td></tr><tr><td>Can be measured or directly seen.</td><td>Cannot be directly observed.</td></tr><tr><td>Objective (same for everyone).</td><td>May vary from person to person.</td></tr></tbody></table>	Observation	Inference	Based on facts collected using senses or instruments.	A conclusion or explanation based on observations.	Can be measured or directly seen.	Cannot be directly observed.	Objective (same for everyone).	May vary from person to person.	3
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27	Particles of matter have spaces between them. Example: Sugar dissolves in water because sugar particles fit into the spaces between water particles. Particles of matter are continuously moving. Example: The smell of perfume spreads throughout a room. Particles of matter attract each other. Example: Solids have a fixed shape because their particles are held together by strong forces of attraction. or	3								

	a) A – Solid B – Liquid C – Gas b) Container A has the highest force of attraction because its particles are tightly packed. c) On continuous heating, Container B (liquid) changes into gas. The particles gain energy, move faster, and spread farther apart.	
28	<u>Based on the below passage, answer the following questions:</u> a) The process is Diffusion. b) It shows that particles of matter are continuously moving. c) It proves that particles of matter are extremely small and numerous, as even a small amount of potassium permanganate can colour a large amount of water.	4
29	1. Identify the problem – Example: Do plants grow better in sunlight or shade? 2. Ask a scientific question – Does sunlight affect plant growth? 3. Form a hypothesis – Plants grow better in sunlight than in shade. 4. Conduct an experiment – Grow identical plants under sunlight and shade with the same amount of water and soil. 5. Observe and record data – Measure plant height regularly. 6. Analyze the results – Compare the growth of both plants. 7. Draw a conclusion – Decide whether the hypothesis is supported. OR Investigation: Does warm water dissolve sugar faster than cold water? 1. Question: Does warm water dissolve sugar faster than cold water? 2. Hypothesis: Warm water dissolves sugar faster than cold water. 3. Experiment: Take equal amounts of warm and cold water in two beakers. Add the same amount of sugar to each and stir equally. 4. Observation: Record the time taken for the sugar to dissolve. 5. Analysis: Compare the recorded times. 6. Conclusion: If sugar dissolves faster in warm water, the hypothesis is supported.	5
Section-C Physics		
30	(d) Height of the liquid column above the point	1
31	(a) An electric iron	1

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32	Both A and R are true, and R is the correct explanation of A.	1						
33	Pressure is inversely proportional to the area. When the same force acts on a smaller area, the pressure increases. Example: A sharp knife cuts better than a blunt knife because its edge has a smaller area, producing greater pressure.	2						
34	The heating effect of electric current is the production of heat when electric current passes through a conductor. Cause: When current flows through a conductor, it faces resistance. Due to this resistance, electrical energy is converted into heat energy, causing the conductor to become hot.	2						
35	An electromagnet is a temporary magnet produced when electric current passes through a coil wound around a soft iron core. Factors affecting its strength: 1. Number of turns of the coil. 2. Strength of electric current. 3. Nature of the core (soft iron makes it stronger).	3						
36	<table><tr><td>Contact Force</td><td>Non-contact Force</td></tr><tr><td>Acts only when objects are in contact.</td><td>Acts without physical contact.</td></tr><tr><td>Example: Frictional force, Muscular force.</td><td>Example: Gravitational force, Magnetic force, Electrostatic force.</td></tr></table>	Contact Force	Non-contact Force	Acts only when objects are in contact.	Acts without physical contact.	Example: Frictional force, Muscular force.	Example: Gravitational force, Magnetic force, Electrostatic force.	3
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	Requires touching between objects. Does not require touching between objects.	
37	• Zinc rod (Anode) • Copper rod (Cathode) • Zinc sulphate solution • Copper sulphate solution • Salt bridge • Connecting wire • Bulb Working: • A Voltaic cell converts chemical energy into electrical energy. • Zinc loses electrons and forms zinc ions. • The electrons flow through the wire from zinc to copper, producing electric current. • The salt bridge maintains electrical neutrality by allowing ions to move between the solutions.	3
38	Read the following passage and answer the questions: (a) Answer: Upthrust or buoyant force is the upward force exerted by a liquid on an object immersed in it. (b) Answer: When the ball is released in water, it rises back to the surface. This shows that water exerts an upward force. (c) Answer: The ball rises because the buoyant force acting upward is greater than its weight. OR (d) Answer: No. All liquids exert an upward force called buoyant force on objects immersed in them. The strength of the force depends on the density of the liquid.	1 1 2 2
39	(a) A needle has a very small tip area. The same force produces greater pressure, making it easier to pierce the balloon.	5

(b) Given:

- Weight of each person = **800 N**
- Number of persons = **4**
- Area = **8 m²**

Total Force = $4 \times 800 = 3200 \text{ N}$

Pressure = Force/Area = $3200/8 = 400 \text{ Pa}$

Answer: Pressure exerted = 400 Pa

OR

(a)

Pressure is the force acting per unit area of a surface.

Formula:

Pressure = Force/Area

S.I. Unit: Pascal (Pa)

(b) Given:

- Force = **12,000 N**
- Area = **0.40 m²**

Pressure = $120000/.40 = 30000 \text{ Pa}$

Answer: Pressure exerted = 30,000 Pa

*****ALL THE BEST*****