



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 I) MARKING SCHEME

Class: VIII
Date: 31.08.26

Time: 3 hours
Max Marks: 80

Section-A BIOLOGY		
1	b) Robert Hooke	1
2	c) Nucleus	1
3	b) Cell wall	1
4	b) Physical well- being, mental well- being, and social well- being	1
5	b) Fever measured with a thermometer	1
6	c) Parasitic worms	1
7	c) Hepatitis A	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 Assertion (A) and Reason (R) are true , and Reason (R) is the correct explanation of Assertion (A).	1
9	Both Assertion (A) and Reason (R) are true , and Reason (R) is the correct explanation of Assertion (A).	1
10	☐ Cell ☐ Tissue ☐ Organ ☐ Organ System	2

	☐ Organism (Human Body)	
11	1. Nucleus: Controls all the activities of the cell and contains genetic material. 2. Chloroplast: Contains chlorophyll and prepares food by the process of photosynthesis.	2
12	☐ Do not allow water to stagnate in coolers, pots, and tyres. ☐ Keep surroundings clean. ☐ Use mosquito nets and mosquito repellents. ☐ Cover water storage containers properly. ☐ Spray insecticides where mosquitoes breed.	2
13	(a) The white layer is caused by the growth of mould (fungus), which develops on the fruit due to the action of microorganisms. (b) No, the fruit is not fit for consumption because it has been spoiled by fungal growth and may cause illness if eaten. OR The kitchen waste decomposed with the help of microorganisms and formed compost. Compost is rich in nutrients and improves soil fertility. Therefore, the rose sapling received sufficient nutrients and grew well.	3
14	(a) The month showing the highest bar on the graph. (<i>Write the month according to the given graph.</i>) (b) The cases may have increased due to contaminated drinking water, poor sanitation, heavy rainfall, or flooding that spread the disease. (c) ☐ Ensure the supply of clean and safe drinking water. ☐ Maintain proper sanitation and waste disposal.	3
15	a) They are called microorganisms (microbes). b) Yeast. c) Yeast ferments the sugars present in the batter and releases carbon dioxide gas. The trapped gas bubbles make the batter rise, making the idlis soft, light, and fluffy. OR c) ☐ They are used to prepare curd and cheese. ☐ They are used to produce antibiotics such as penicillin.	1 1 2 2
16	Non-communicable diseases are diseases that do not spread from one person to another. They are often caused by unhealthy lifestyle habits, genetic factors, or environmental conditions. Examples include diabetes, hypertension, and heart disease. Prevention: • Eat a balanced diet. • Exercise regularly. • Avoid smoking and alcohol. • Maintain a healthy body weight. • Have regular health check-ups. OR	5

	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. 1. Antibiotics kill most bacteria. 2. A few bacteria survive because they are resistant. 3. These resistant bacteria reproduce. 4. Their offspring are also resistant. 5. Eventually, the antibiotic no longer works well against them.									
Section-B Chemistry										
17	b) The water in the beaker is colourless.	1								
18	b) It helps scientists make a testable prediction.	1								
19	a) Measuring cylinder	1								
20	a) Particles have spaces between them.	1								
21	b) Liquid	1								
22	c) Sublimation	1								
23	c) Perfume in air	1								
24	Both A and R are true, and R is the correct explanation of A.	1								
25	● Gas particles are in continuous random motion. ● There are spaces between air particles, allowing incense particles to diffuse and mix with the air.	2								
26	<table><tr><th>Observation</th><th>Inference</th></tr><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></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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	Particles vibrate at fixed positions. Particles move freely in all directions. OR a) A – Solid, B – Liquid, C – Gas b) Container A; because its particles are closely packed with the strongest force of attraction. c) Container B changes into a gas. On heating, particles gain kinetic energy, move faster, overcome the force of attraction, and spread apart.	
28	a) Diffusion b) Particles of matter are continuously moving. c) On a warm day, particles have more kinetic energy, so diffusion is faster.	4
29	1. Identify the problem. 2. Form a hypothesis. 3. Conduct the experiment using equal amounts of warm and cold water with equal amounts of sugar. 4. Observe and record the time taken to dissolve. 5. Analyze the results. 6. Draw the conclusion that sugar dissolves faster in warm water if it takes less time. OR 1. Identify the problem. 2. Form a hypothesis. 3. Conduct an experiment. 4. Observe and record data. 5. Analyze the data. 6. Draw a conclusion.	5
Section-C Physics		
30	(d) An electric iron	1
31	(d) Height of the liquid column above the point	1
The following question consists 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.		
32	Both A and R are true, and R is the correct explanation of A.	1
33	The heating effect of electric current is the production of heat when an electric current passes through a conductor.	2

	Cause: When electric current flows through a conductor, the conductor offers resistance to the flow of current. Due to this resistance, electrical energy is converted into heat energy, causing the conductor to become hot.	
34	A sharp knife has a smaller surface area at its edge. Since Pressure = Force ÷ Area , the same force produces greater pressure , making it easier to cut objects.	2
35	Labels: • 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 two solutions.	3
36	An electromagnet is a temporary magnet produced when electric current flows through a coil wound around a soft iron core. Factors affecting its strength: 1. Number of turns in the coil. 2. Strength of the electric current. 3. Nature and size of the core (soft iron makes it stronger).	3
37	Magnetic Force Gravitational Force Acts between magnets and magnetic materials. Acts between any two objects having mass.	3

	Can attract or repel. Always attracts. Depends on magnetic poles and magnetic field. Depends on the masses of the objects and the distance between them.	
38	Read the following passage and answer the questions: a. Salt dissolves in water, increasing the mass of the water without greatly increasing its volume. Therefore, salt water has a higher density. b. Salt water is denser and exerts a greater buoyant force on objects, making them float more easily. c. Buoyant force is the upward force exerted by a liquid on an object immersed in it. Salt water increases the buoyant force because it is denser than fresh water. or d. One factor is the density of the liquid. A denser liquid exerts a greater buoyant force, making it easier for objects to float.	1 1 2 2
39	Formula: Pressure=Force/Area S.I. Unit: Pascal (Pa) (b) Calculation Given: - Force (Weight) = 20,000 N - Area = 0.80 m² $P = F/A = 200000/0.80 = 25000 \text{ Pa}$ Pressure = 25,000 Pa	5
	OR (a) Answer: Wide straps increase the area over which the weight is distributed. This reduces pressure on the shoulders, making the bag more comfortable to carry. (b) Calculation	

	Given: • Weight of each person = 600 N • Number of persons = 4 • Base area = 6 m² Total Force = $4 \times 600 = 2400 \text{ N}$ $P = F/A = 2400/6 = 400 \text{ Pa}$ Answer: Pressure exerted on the base of the boat = 400 Pa	
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*****ALL THE BEST*****