



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)

Class: VIII

Date: 31.08.26

Time: 3 hours

Max Marks: 80

General Instructions:

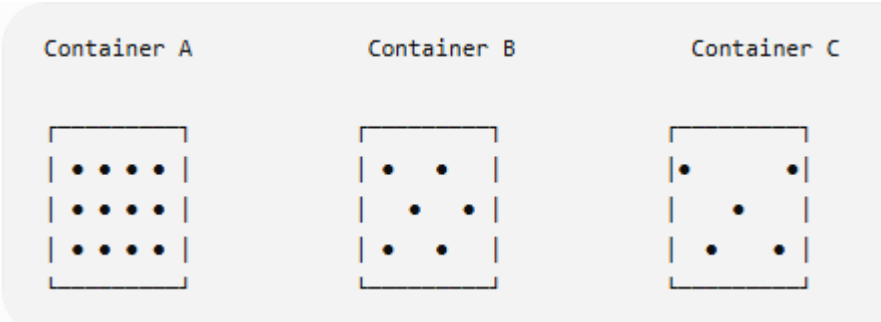
(i) This question paper consists of 39 questions in 3 sections. Section A is Biology, Section B is Chemistry and Section C is Physics.

(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

Section-A BIOLOGY		
1	Which organelle in plant cells captures sunlight for photosynthesis? a) Chloroplast b) Vacuole c) Cytoplasm d) Ribosome	1
2	Why are nerve cells long and branched? a) To store food b) To carry messages quickly c) To provide support to the body d) To help in photosynthesis	1
3	Microorganisms that feed on dead and decaying matter belong to which group. a) Fungi b) Archaea c) Protozoa d) Viruses	1
4	Which of these diseases is non- communicable? a) Malaria b) Diabetes c) Cholera d) Influenza	1
5	Which of the following is a key factor in preventing the spread of communicable diseases? a) Exercise b) Vaccination c) Sleeping well d) Drinking water	1
6	Which disease is transmitted through contaminated water and food? a) Chicken pox b) Measles c) Hepatitis A d) Tuberculosis	1
7	What is ascariasis caused by? a) Bacteria b) Virus c) Parasitic worms d) Protozoa	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	Assertion (A): A balanced diet is essential for good health. Reason (R): It provides all the nutrients required by the body in the right amounts.	1
9	Assertion (A): Microorganisms cannot be seen with the naked eye. Reason (R): A microscope is used to observe microorganisms.	1
10	Compare communicable and non-communicable diseases.	2
11	Name two organelles in a plant cell and their functions.	2
12	List the levels of biological organisation in a human body, starting from the smallest unit.	2
13	Draw the diagram of a plant cell and label the following parts: • Nucleus • Cell membrane • Cytoplasm • Chloroplast • Vacuole • Cell wall OR Sahas wants to bake some bread. Read the recipe below and answer the given questions. (a) Mix flour, a pinch of salt, and some sugar. (b) Slowly add water to the mixture and knead it to make dough. (c) Keep the dough aside for two hours and let it rise. (d) Bake the dough. - Which ingredient is missing from the recipe? - What will happen if Sahas follows the recipe without adding the missing ingredient?	3
14	Fill in the missing steps in the flowchart given and name the diseases that spread this way. (a) <pre> graph LR A[An infected person sneezes] --> B[] B --> C[A healthy person breathes in germs] </pre> (b) <pre> graph LR A[A rabid monkey] --> B[] B --> C[A healthy person gets infected] </pre> (c) <pre> graph LR A[Disease causing germs] --> B[Contaminated food/water] B --> C[] </pre>	3
15	Read the following passage and answer the questions: After a picnic, some students ate uncovered food kept outside for several hours. The next day, a few of them complained of stomach pain, vomiting, and diarrhoea. The doctor explained that harmful microorganisms had contaminated the food and advised everyone to eat fresh, covered food and maintain good hygiene. Answer the following questions: - What are disease-causing microorganisms called? - Mention one way by which food can be protected from contamination by	1 1

	microorganisms. c) Why did the students fall sick after eating the uncovered food? Explain. OR c) State two precautions that can help prevent diseases caused by harmful microorganisms.	2 2
16	Write a short note on non- communicable diseases and ways to prevent them. OR Explain how antibiotic- resistant bacteria are formed.	5
Section-B Chemistry		
17	A student wants to find out whether plants grow better in sunlight or shade. What should be the first step? a) Draw a conclusion b) Ask a scientific question c) Write the observations d) Publish the results	1
18	Which of the following best describes a hypothesis? a) A final conclusion b) A scientific instrument c) A possible explanation that can be tested d) A recorded observation	1
19	Which of the following is an example of a qualitative observation? a) The plant is 15 cm tall. b) The water boils at 100°C. c) The flower is bright red. d) The pencil is 18 cm long.	1
20	Which property of matter explains why perfume spreads throughout a room? a) Density b) Diffusion c) Solubility d) Compression	1
21	Which state of matter has particles that are close together but can slide past one another? a) Solid b) Liquid c) Gas d) Plasma	1
22	Why are gases easily compressed? a) Their particles are very heavy. b) They have fixed shapes. c) There are large spaces between their particles. d) Their particles stop moving.	1
23	Which process takes place when water vapour changes into liquid water? a) Melting b) Freezing c) Condensation d) Sublimation	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.		

24	Assertion (A): Diffusion occurs faster in gases than in liquids. Reason (R): Gas particles move faster and have more space between them.	1
25	A student performs the same experiment three times before writing the result. Why is repeating an experiment important? Give any two reasons.	2
26	Distinguish between observation and inference by giving any three differences.	3
27	Explain any three characteristics of particles of matter with one suitable example for each. OR  Study the diagrams showing the arrangement of particles in three containers. a) Identify the state of matter represented by A, B, and C. b) Which container has the highest force of attraction between particles? Explain why. c) If Container B is heated continuously, predict the change that will occur and explain it using the particulate nature of matter	3
28	<u>Based on the below passage, answer the following questions:</u> A teacher placed a few crystals of potassium permanganate in a beaker of water. After some time, the entire water turned light purple without stirring. The teacher then transferred a small amount of this solution into another beaker of clean water. The second beaker also became purple. a) Name the process taking place. b) What does this activity show about the movement of particles? c) What does the experiment prove about the size and number of particles of matter?	1 1 2

29	Describe the scientific method used to investigate a problem. Explain each step with a suitable example. OR A group of students wants to investigate whether warm water dissolves sugar faster than cold water. Describe how they should carry out the investigation using the scientific method.	5
Section-C Physics		
30	What does the pressure at a point in a liquid depend on? (a) Height of the liquid column below the point (b) Shape of the container (c) Area of the container (d) Height of the liquid column above the point	1
31	Which of the following applications does NOT use an electromagnet? (a) An electric iron (b) A maglev train (c) An electric bell (d) An MRI machine	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	Assertion (A): Like charges repel each other, while unlike charges attract each other. Reason (R): Electrostatic force depends on the nature of the charges.	1
33	Explain with an example how pressure depends on the area.	2
34	What is the heating effect of electric current? Explain the cause of heating effect of electric current	2
35	Define an electromagnet. State three factors that affect the strength of an electromagnet	3
36	Differentiate between contact and Non contact forces.	3
37	Draw and label the diagram of the Voltaic cell. How does the Voltaic cell work?	3

38	Read the following passage and answer the questions: You must have observed that your hand felt an upward push in the water, and when the ball was released, it rose back up. This shows that water exerts an upward force on objects immersed in it. Like water, every liquid exerts a similar force . a. What is upthrust or buoyant force? b. What observation shows that water exerts an upward force on an object immersed in it? c. Why does a ball rise back to the surface when released in water? or d. Do only water and not other liquids exert an upward force on immersed objects? Explain	1 1 2 2
39	(a) It is easier to pierce a balloon with a needle than with a finger. Give reason (b) A boat has a base area of 8 m^2. Four persons can sit in it. If each person has a weight of 800 N, find out the pressure exerted on the base of the boat when four persons are sitting in it. or (a) What is Pressure? Write S.I unit of Pressure (b) An elephant is standing on four feet. The total area covered by all four feet is 0.40 m^2. Calculate the pressure exerted by the elephant on the ground if its weight is 12,000 N.	5

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