



B.K. BIRLA CENTRE FOR EDUCATION

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

MID-APRIL TEST 2026-27
SCIENCE (086)

Class: X

Date: 18.04.26

Admission no:

General Instructions:

Time: 1hour

Max Marks: 25

Roll no:

- i. This question paper consists of 12 questions in 3 sections.
- ii. Section A is Biology, Section B is Chemistry and Section C is Physics.
- iii. All questions are compulsory.

Section A (Biology)

1. The enzyme Pepsin is inactive in the stomach without the presence of 1
(a) Nitric Acid (b) Hydrochloric acid
(c) Acetic acid (d) Citric acid
2. (a) Differentiate between autotrophic and heterotrophic nutrition. 2
(b) What is the role of bile juice in digestion?
3. Give reason: 3
(a) The walls of trachea is supported by cartilage rings.
(b) Herbivores need a longer small intestine whereas carnivores like tigers have a shorter small intestine.
(c) Diffusion is insufficient to meet the oxygen requirements of multicellular organisms like humans.
4. What are the different ways in which glucose is oxidised to provide energy in various organisms? 3

Section B (Chemistry)

5. Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is 1
(a) 1:1 (b) 2:1 (c) 4:1 (d) 1:2
6. Write a balanced chemical equation for each of the following reactions and also classify them. 2
(a) Lead acetate solution is treated with dilute hydrochloric acid to form lead chloride and acetic acid solution.
(b) Hydrogen sulphide gas reacts with oxygen gas to form solid sulphur and liquid water.
7. What happens when Ferrous sulphate is heated in a test tube. Write a balanced chemical reaction. 2
8. On adding a drop of barium chloride solution to an aqueous solution of sodium sulphate, white precipitate is obtained. 3
(a) Write a balanced chemical equation of the reaction involved
(b) What other name can be given to this precipitation reaction?

Section C (Physics)

9. Which mirror is used as a rear-view mirror in vehicles? 1
A. Plane mirror B. Convex mirror
C. Concave mirror D. None of these

10. Define following terms in brief: 2
(i) Principal Focus
(ii) Radius of curvature
Write relation between Radius of curvature and Focal Length of a spherical mirror.
11. State the two laws of reflection of light. Explain using a ray diagram. 2
12. Draw the ray diagram when the object is placed beyond the centre of curvature of a concave mirror. Write the nature of the image. 3

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