



# B.K. BIRLA CENTRE FOR EDUCATION

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

PRE-MID TERM TEST 2026-27

SCIENCE

SET-II

Class: X

Date: 23.07.26

Admission no:

General Instructions:

- This question paper consists of 13 questions in 3 sections.
- Section A, Biology of 9 marks.
- Section B, Chemistry of 8 marks.
- Section C, Physics of 8 marks.

Time: 1 hour

Max Marks: 25

Roll no:

| Section A (Biology)   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1.                    | The growth of tendrils in pea plants is due to<br>(a) effect of light<br>(b) effect of gravity<br>(c) rapid cell divisions in tendrillar cells that are away from the support<br>(d) rapid cell divisions in tendrillar cells in contact with the support                                                                                                                                                                                                                                                                                                                                             | 1 |
| 2.                    | Which of the following statements about transmission of nerve impulse is incorrect?<br>(a) Nerve impulse travels from dendritic end towards axonal end.<br>(b) At the dendritic end electrical impulses bring about the release of some chemicals which generate an electrical impulse at the axonal end of another neuron.<br>(c) The chemicals released from the axonal end of one neuron cross the synapse and generate a similar electrical impulse in a dendrite of another neuron.<br>(d) A neuron transmits electrical impulses not only to another neuron but also to muscle and gland cells. | 1 |
| 3.                    | How is the movement of leaves of the sensitive plant different from the movement of a shoot towards light?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2 |
| 4.                    | a) Why is the use of iodised salt advisable?<br>b) How does our body respond when adrenaline is secreted into the blood?                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2 |
| 5.                    | What is a reflex arc? Draw the structure of a reflex arc and label the following parts which perform the following functions:<br>i) receives stimulus<br>ii) through which information travels and is located in the spinal cord.<br>iii) where the information is passed on and is responsible for movement.                                                                                                                                                                                                                                                                                         | 3 |
| Section B (Chemistry) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |   |
| 6.                    | How many water molecules does hydrated Ferrous sulphate contain?<br>(a) 5 (b) 10 (c) 7 (d) 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 |
| 7.                    | Common name of $\text{CaOCl}_2$<br>(a) washing soda (b) baking soda<br>(c) bleaching powder (d) tartaric acid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 |
| 8.                    | Five solutions A, B, C, D and E have pH = 0, 4, 5, 13 and 14 respectively.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 |

|     |                                                                                                                                                                         |   |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
|     | (i) Which solution has highest concentration of $H^+$ ions?<br>(ii) Which solution has the lowest concentration of $H^+$ ions?<br>(iii) Which is most Acidic in nature? |   |
| 9.  | Explain Chlor-Alkali process. Write all the reaction involved in it.                                                                                                    | 3 |
|     | Section C (Physics)                                                                                                                                                     |   |
| 10. | The image formed on the retina of a healthy human eye is:<br>(a) Virtual and upright (b) Virtual and inverted (c) Real and upright (d) Real and inverted                | 1 |
| 11  | What is 'dispersion of white light'? Draw a ray diagram to show the dispersion of white light by a glass prism.                                                         | 2 |
| 12. | Explain the twinkling of stars using a ray diagram.                                                                                                                     | 2 |
| 13. | Define hypermetropia. Write different causes responsible for hypermetropia. Explain the working of hypermetropic eye and its correction by ray diagram.                 | 3 |

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