B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL
POST-MID TERM EXAMINATION 2025-26
SCIENCE (086)

Class: IX   Time: 1hour
Date: 12.01. 26   Max Marks: 25
Admission no: Roll no:

General Instructions:
i. This question paper consists of 12 questions in 3 sections.
ii. Section A consists of 2 objective-type questions and 1 Assertion Reason based question carrying 1 mark each.
iii. Section B consists of 5 Very Short questions carrying 02 marks each.
iv. Section C consists of 4 Short Answer questions with 03 marks each.

Section A

1. When two identical bodies are in motion, the body with a higher velocity has……   1
   (a) Lower Kinetic Energy   (b) Higher Kinetic Energy
   (c) No Kinetic Energy   (d) None of the options

2. The mass number of the element is ──────   1
   (a) The sum of the number of electrons and protons (c) The number of neutrons
   (b) The sum of the number of protons and neutrons (d) The number of protons

3. Assertion: Fodder crops like berseem, oats etc. are also grown along with cereals and pulses.
   Reason: Fodder crop is food for the livestock.   1
   (a) Assertion and Reason are true; Reason explains Assertion
   (b) Assertion and Reason are true; Reason doesn't explain Assertion
   (c) Assertion true, Reason false
   (d) Assertion false, Reason true

Section B

4. Distinguish between positive work and negative work. When you lift an object up, two forces act on it. Identify these forces. Which one of the two does: (a) Positive work (b) Negative work. Justify your answer.   2

5. Define kinetic energy. Obtain an expression for the kinetic energy of an object.   2

6. If K and L shells of an atom are full, then what would be the total number of electrons in the atom?   2

7. (a) Name the three sub-atomic particles of an atom.
   (b) Write the number of neutrons and protons present in: $^{39}_{19}K$ 2

8. Define the term hybridisation and photoperiod.   2

Section C

9. A labourer whose own mass is 50 kg carries a load of an additional 60 kg on his head to the top of a building 15 m high. Find the total work done by him. Also, find the work done by him if he carries an additional block of mass 10 kg to the same height.   3

10. Describe Bohr's model of the atom.   3

11. What happens due to deficiency of nutrients?   3

12. Differentiate between (any one point each):   3
    a. Kharif and rabi crops
    b. Manure and fertilizer
    c. Macronutrient and micronutrient

---ALL THE BEST---