



Gurukul Global School
Class - IX
Science (086)



Date: 12-12-2025

Time: 1 hr.

M.M. 30

General Instructions:

- (i) This question paper consists of 16 questions in 3 sections. Section A is Biology,
- (ii) Section B is Chemistry and Section C is Physics.
- (iii) 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 This is not an oilseed crop. (1)
(a) Sesame (b) Linseed. (c) Pigeon Pea. (d) Sunflower
- 2 Cropping pattern includes _____. (1)
(a) Crop rotation (b) Mixed cropping (c) Intercropping. (d) All of these
3. Assertion: Cattle are fed with roughage and concentrates. (1)
Reason: Roughage provides fibres while concentrates provide proteins and other nutrients.
4. Differentiate between micronutrients and macronutrients. (2)
- 5 (a) Name one bio pesticide used for the protection of stored grains. (1)
(b) What are the advantages of composite fish culture? (2)
(c) What management practices are common in dairy and poultry farming? (2)

SECTION-B CHEMISTRY

6. Two ions, Zn^{2+} and S^{2-} combine to form a compound. What should be the formula of the compound formed? (1)
a) Zn_2S b) ZnS
c) Zn_2S_2 d) ZnS_2
7. The molecular mass of x is 106. x can be (1)
a) $CaCO_3$ ✓ b) SO_3 ✗
c) Na_2CO_3 ? ✓ d) $NaCl$ ✗
8. Which among the following is not a postulate of Dalton's atomic theory? (1)
a) Atoms can not be created or destroyed
b) Atoms of different elements have different sizes, masses and chemical properties
c) Atoms of same elements can combine in only one ratio to produce more than any one compound
d) Atoms are very tiny particles which can not be further divided
- 9 a) The atomic number of three elements A, B and C are 9, 10 and 13 respectively. Which of them will form a cation? (1)
- b) Which of the following symbols of elements are incorrect? Give their correct symbols. (2)
(a) Cobalt CO - Co (b) Carbon c - C
(c) Aluminium AL - Al (d) Helium He - He
(e) Sodium So - Na

10. Read the paragraph given below and answer the questions that follow
The chemical combination laws are given in accordance with the chemical equation which are applicable universally such as law of Chemical Combination and Law of Definite Proportion

- a) State the law of Definite Proportion quoting an example of Carbon monoxide (1)
b) Find the ratio of mass of the combining elements in the following compounds: (3)
(a) CaCO_3 (b) MgCl_2
(c) H_2SO_4 (d) $\text{C}_2\text{H}_5\text{OH}$
(e) NH_3 (f) Ca(OH)_2

SECTION-C PHYSICS

11. How much time will be required to perform 520 J of work at the rate of 20 W? (1)
(a) 24s (b) 16s
(c) 20 s (d) 26 s
12. One unit of electrical energy is equal to (1)
(a) $3.6 \times 10^5\text{J}$ (b) $3.6 \times 10^6\text{J}$
(c) $36 \times 10^5\text{J}$ (d) both (b) and (c)
13. An object of mass 40 kg is raised to a height of 5 m above the ground. What is its potential energy.? If the object is allowed to fall, find its kinetic energy when it is half-way down. (2)
14. Define Work. Explain the types of work .Give one Example of Zero Work. (3)
15. What is the Kinetic Energy of an object? Derive Its expression. (3)
