



विद्या सर्वार्थ साधिका

ANANDALAYA
PERIODIC TEST -1
Class : 11

Subject: Biology
Date : 05-08-2022

MM : 30
Time: 1Hr 30 min.

General Instructions:

1. There are 15 questions in this question paper. All questions are compulsory.
2. Q. No. 1 to 6 are objective type questions and carry 1 mark each.
3. Q. No. 7 to 11 are short answer questions and carry 2 mark each.
4. Q. No. 12 to 14 are also short answer questions and carry 3 marks each.
5. Q. No. 15 is long answer question and carry 5 marks in which one option is provided.

1. Polysomes are : (1)
(A) Ribosomes found on ER.
(B) Several ribosomes on an mRNA.
(C) Ribosomes found on the nuclear membrane
(D) Many amino acids found on mRNA.
2. Among the following, which is not a function of Golgi complex? (1)
(A) Packaging of materials (B) Formation of vesicles
(C) Modification of proteins (D) Internal digestion
3. Mitochondria and Chloroplasts are said to be semi autonomous organelles as they have _____. (1)
(A) double membranes (B) their own DNA
(C) their own protein (D) the same enzymes
4. Among the following substances, _____ is not a metabolite of plant origin. (1)
(A) Gum (B) Resin (C) Fevicol (D) Latex
5. Among the following chemicals, which is not a protein? (1)
(A) Trypsin (B) Actin (C) Albumin (D) Inulin
6. Which of the following statement is not correct? (1)
(A) New cells form from preexisting cells by division.
(B) Robert Brown discovered cell.
(C) Schleiden and Schwann formulated cell theory.
(D) Mesosomes are found in prokaryotic cells.
7. What are amino acids? Explain its general molecular structure. (2)
8. Classify chromosomes based on the position of their centromere into different categories. (2)
Give a diagrammatic representation of the same.
9. What enables the flagellum of a microbe to move so that it helps in its locomotion? Explain (2)
how its structure facilitates this?
10. How do you apply the concept of division of labour in a cell? (2)

11. What are plastids? Name the structures in a cell that stores carotene, carbohydrates and oils. (2)
12. All the enzymes function at ideal physiological conditions. Mention any three major factors affecting enzyme action. Explain how each one affects the rate of reaction. (3)
13. Plasmamembrane is the boundary of animal cells and is selectively permeable. What kind of structure do you suggest for the membrane which makes the cellular interactions possible? (3)
14. Biomolecules have structural stability, yet they enter into various chemical reactions during metabolism. Which types of chemical bonds enables them for this? Explain with examples for different types of bonds formed among them. (3)
15. (a) How is the progress of a reaction controlled by an enzyme? (5)
(b) Compare enzymatic and non-enzymatic reactions using graphs and explain the concept of activation energy.
(c) Through various steps, explain how do enzymes bring about such high rates of chemical conversions?

OR

- (a) What are co- factors?
- (b) Which are the three types of co-factors?
- (c) Explain each type giving examples.