First Terminal Examination Model question Paper

BIOLOGY

Standard: VIII
Time: 40 minutes
Total Score: 20

Instructions:

- Answer all questions as per the marking scheme.
- Write your answers clearly and concisely.

Section A: Answer any 3 questions from 1 to 4. Each question carries 1 score. (3x1=3)

1. Which of the following is NOT a macronutrient required by plants?
   (a) Nitrogen
   (b) Phosphorus
   (c) Boron
   (d) Potassium

2. Identify the agricultural method that helps overcome space constraints by growing crops in vertically stacked layers.
   (a) Sack Farming
   (b) Vertical Farming
   (c) Pot Cultivation
   (d) Greenhouse Farming

3. Find the odd one out and write the common feature of the others.
   Nitrogen, Phosphorus, Potassium, Calcium, Iron.

4. What is the name of the technique used to produce a large number of plants with the characteristics of the parent plant by growing tissues in a nutrient medium?
   (a) Grafting
   (b) Budding
   (c) Tissue Culture
   (d) Layering

Section B: Answer any 4 questions from 5 to 9. Each question carries 2 scores. (4x2=8)

5. Observe the figure

a) How does vertical farming help overcome space constraints?
b) Name one advantage of vertical farming related to water usage.

6. a) What is the primary goal of Integrated Pest Management (IPM) in agriculture?
b) Name one method used in IPM to control pests without relying on harmful pesticides.

7. A student is setting up a nutrition garden at school using local vegetable varieties.
a) Why are local vegetable varieties preferred for cultivation?
b) How do these varieties contribute to ecological balance?

8. a) What was the purpose of the Urey-Miller experiment?
b) Name one biomolecule synthesized in this experiment.

9. Complete the concept map based on the types of fertilisers used in agriculture:
Fertilisers
    - Organic Fertilisers
        - Examples: _____, _____
    - Inorganic Fertilisers
        - Examples: _____, _____

Section C: Answer any 3 questions from 10 to 13. Each question carries 3 scores. (3x3=9)

10. a) What is integrated farming?
b) Name one benefit of integrating animals with crop cultivation.
c) Suggest one example of an integrated farming practice that could be implemented in a local farm.

11. Based on the Chemical Evolution Theory
a) Describe the characteristics of the primitive Earth's atmosphere.
b) Name two sources of energy that assisted the formation of biomolecules.
c) What is the significance of the primitive cell in the origin of life?

12. a) Name one key difference between prokaryotic and eukaryotic cells.
    b) What is the significance of eukaryotic cells in the evolution of complex organisms?
    c) Name one organelle found in eukaryotic cells but absent in prokaryotic cells.

13. a) What is a GM crop?
    b) Give one example of a GM crop and its modified trait.
    c) Why do some people believe GM crops may pose a threat to indigenous species?