

**Instructions:** Read the question paper carefully. Write neatly and legibly. Do not over write. Pay special attention to spelling. Read the answers before submitting the answer sheet

**Section A (Attempt all questions)****I. Choose the correct option.****(4)**

1. Biotic components of ecosystems are

- a) Producers    b) Carnivores    c) Herbivores    d) All of these

2. Term ecosystem was derived from Greek word "oikos" which means

- a) Food    b) House    c) Body weight    d) All of these

3. Formation of sperm and ovum is known as

- a) Embryogenesis    b) Gametogenesis    c) Fertilization  
d) Implantation

4. Fusion of sperm and ovum is known as

- a) Copulation    b) Incubation    c) Maturation    d) Fertilization

5. Which of the following is a rhizome

- a) Potato    b) Ginger    c) Sweet potato    d) Radish

6. Grafting is a method of

- a) Sexual reproduction    b) Vegetative propagation  
c) Artificial pollination    d) Tissue culture

7. Raisins swell up when put in

- a) Saturated sugar solution    b) Mustard oil  
c) Rain water    d) Concentrated salt solution

8. Minerals from soil are absorbed by root hairs by the mechanism of

- a) Diffusion    b) Osmosis    c) Active transport    d) Selective absorption

**II. Fill in the blanks.**

**(4)**

1. \_\_\_ vessels have thick walls and narrow lumen.
2. Weather, climate, atmosphere and soil form the \_\_\_ component of ecosystem.
3. A snake feeding on a frog represents \_\_\_ carnivore.
4. The cells involved in sexual reproduction are called \_\_\_.
5. Seed develops from \_\_\_.
6. Sugarcane plants are grown by \_\_\_.
7. Water evaporates from the \_\_\_ of plants.
8. In \_\_\_ alga and fungus have symbiotic relation.

**III. Give one word.**

**(4)**

1. Single cell formed by the fusion of male and female gametes.
2. The organ where sperms are produced.
3. Process of eating and being eaten.
4. The interaction of living organisms with nonliving environment \_\_\_.

**IV. Write true or false.**

**(4)**

1. Abiotic components include plants and animals.
2. The flow of energy in an ecosystem is in one direction only.
3. The unfertilized egg is called zygote.
4. The first cell of a living organism is embryo.

**V. Match the column.**

**(4)**

- |                                    |                     |
|------------------------------------|---------------------|
| 1. Hormone released by ovary       | a) Decomposers      |
| 2. Fixing of embryo to uterus wall | b) Lichen           |
| 3. Scavenger                       | c) Stem tuber       |
| 4. Symbiosis                       | d) Embryo wall      |
| 5. Potato tuber                    | e) Spores           |
| 6. Cell sap                        | f) Movement of food |
| 7. Translocation                   | g) Estrogen         |
| 8. Bread mould                     | h) Vacuole          |

## Section B(attempt any five)

1.a) Describe two types of food chain with the help of diagram. (2)

b) Name various agents of cross pollination (1)

2.a) Define 1. Ecosystem 2. Scavengers (2)

b) Discuss various conditions that alter rate of transpiration (1)

3.a) Draw and label human sperm (2)

b) Give function of xylem vessels (1)

4.a) Differentiate between oviparous and viviparous animals. (2)

b) Define gestation period. (1)

5.a) What is meant by sexual reproduction? (2)

b) Give reason Yeast cell form long chain (1)

6.a) Describe adaptations in root hairs for absorption of water. (2)

b) Name the primary source of energy in ecosystem? (1)

7. The given diagram is of foetus in the womb (3)



a) Label the parts 1 to 4.

b) Give function of part marked 1.