

Instructions- (i) All questions are compulsory. (ii) There are two Sections in Question paper. 'Section-A' and 'Section-B'. (iii) In Section-A Q.Nos. 1 to 4 are objective type Questions which contain Fill in blanks, Multiple choice, one word/one sentence answer, Match the column. Each question carries 5 marks. (iv) In section 'B' there are question nos 5 to 18 Internal options are given in each question. (v) Q. Nos. 5 to 8 are very short answer type questions. Each carries 2 marks. Write answers of these questions approximately in 30 words each. (vi) Q.Nos. 9 to 13 are short answer type questions. Each carries 4 marks. Write answers of these questions approximately in 75 words each. (vii) Q.Nos. 14 to 16 are long answer type questions. Each carries 5 marks. Write answers of these questions approximately in 120 words each. (viii) Q. Nos. 17 and 18 are long answer type questions. Each carries 6 marks. Write answers of these questions approximately in 150 words each. (ix) Start answering of the objective type questions from first page of the answer sheet. (x) Draw neat and labelled diagram wherever necessary.

Section - A (Objective Type Questions)

Q.1. Fill in the blanks- 5

- (1) $\text{NH}_4^+ + 2\text{O}_2 \xrightarrow{\text{Nitrosomonas}} \dots\dots\dots + 2\text{H}_2\text{O} + \text{Energy}.$
- (2) The Secretion of HCl and gastric Juice is controlled by Hormone.
- (3) Pollination takes place by the agency of bird is called
- (4) Soyabean is a plant.
- (5) Bacterium is found in the roots of leguminous plants.

Q.2. Choose the correct options and write it- 5

- (a) Night blindness is caused due to deficiency of
- | | |
|-------------------|------------------|
| (i) Vitamin - C | (ii) Vitamin - A |
| (iii) Vitamin - D | (iv) Vitamin - E |
- (b) Transpiration Higher among the following plant.
- | | |
|------------------|------------------|
| (i) Mesophytes | (ii) Hydrophytes |
| (iii) Xerophytes | (iv) Algae cells |

- (c) Which of the following is not naturally occurring plant hormone.
- | | |
|-------------------|-----------|
| (i) 2, 4-D | (ii) GA 2 |
| (iii) Gibberellin | (iv) IAA |
- (d) Term ecosystem was used for the first time by.
- | | |
|-------------|----------------------|
| (i) Tansley | (ii) Odum |
| (iii) Ritar | (iv) Mishra and puri |
- (e) Useful vaccination is protection from Polio, Diphtheria and Tetanus.
- | | |
|-----------|----------|
| (i) BCG | (ii) DPT |
| (iii) MMR | (iv) STD |

Q.3. Answer in one word/one sentence each. 5

- What is net gain of energy from oxidation of one mole glucose in oxirepiration and unoxirepiration.
- Write the two functions of paricardial fluid.
- Name any plants in which stem is modified into leaf like structure and leaves are modified into spines.
- In which animals Ranikhet disease occur.
- Write any two causes of uncontrolled population growth.

Q.4. Match the column 5

Column - A

- Lichen
- Earthworm
- Ultrafiltration
- Rhizophora
- Opium

Column - B

- Glomerulus
Mangrove plant
Papaver somniferum
Cutaneous Respiration
Symbiotic

Section - B (Very short Answer type questions)

- Q.5. Draw a labelled diagram of the cardiac muscles. 2
- (Or) Draw a labelled diagram of the Malpighian tubules Transfer section.
- Q.6. Draw a labelled diagram of the pollen grain. 2
- (Or) Write any two difference between Epigeal and Hypogeal Germination.
- Q.7. Write the Two types of mimicry. 2
- (Or) Write is succession, what are its type. Write any two stages.
- Q.8. Wirte any two important difference between short day plants and long day plants. 2
- (Or) What is death, Write main reason of death.

(Short Answer type Questions)

- Q.9. Write the **classification of Animales** on the basis of excretory substance. 4
- (Or) Write the **name of excretory organs** and draw a labeled diagram of excretory system in **humans**.
- Q.10. Write four **important difference** between Arobic and Anarobic Respiration. 4
- (Or) Write four **main difference** between Bone and Cartilage.
- Q.11. Write only the **name of male Reproductive organs** and female Reproductive **organs of Humans**. 4
- (Or) Write only the **name of different stages Mechanism** of human Reproduction.
- Q.12. Write only the **name of classification** of the plants on the basis of temperature. 4
- (Or) Explain the **four Adaptation** of xerophyte.
- Q.13. What is Adiction **and its type**. Write the harmful effect of Alcohol Adiction. 4
- (Or) Explain the **four causes of Adiction**.
- Q.14. Measure the **rate of Transpiration** with the help of Ganong's potometer. 5
- (Or) Explain the **factors affecting** the rate of photosynthesis.
- Q.15. Describe the **internal structure** of human ear with labelled diagram. 5
- (Or) Draw a labelled **diagram of T.S.** of spinal card ad describe its function.
- Q.16. Write the **four causes of water pollution** and explain the control of water pollution. 5
- (Or) Write the **four causes of noise pollution** and explain the control of noise pollution.
- Q.17. Describe the **calvin cycle** with Ray diagram. 6
- (Or) Explain the **starch-sugar interconversion hypothesis** of stomatal opening and closing **and draw** a labelled diagram.
- Q.18. Write the **Botanical names** of the following 6
- | | |
|------------|-------------|
| (1) Potato | (2) Brinjal |
| (3) Chilli | (4) Onion |
| (5) Gram | (6) Wheat |
- (Or) Write the **difference between manure** and Biofertilizers.