

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 Question which contain Fill in the blanks, Multiple choice, One word/One sentences 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 questions. (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 question 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 approximatley 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)

1. Fill in the blanks : 5
 - (i) Rafflesia is a parasite plant.
 - (ii) Rate of transpiration is measured by
 - (iii) Doors of house swell up in the rainy season due to
 - (iv) The main constituent element of chlorophyll is
 - (v) plant hormone is used for ripening of the fruits.
2. Choose the correct option and write it : 5
 - (i) Amylase enzymes act on :

(a) Starch	(b) Protein
(c) Fat	(d) Sugar
 - (ii) Blood bank in human body is :

(a) Spleen	(b) Lungs
(c) Heart	(d) Liver
 - (iii) Ball and Socket Joint present in :

(a) Wrist	(b) Fingers
(c) Neck	(d) Shoulder

- (iv) Emergency hormone is :
 (a) Aldosterone (b) Thyroxine
 (c) Adrenaline (d) Insulin
- (v) The excretory organ of Earthworm is :
 (a) Green glands (b) Malpighian tubule
 (c) Setae (d) Nephridia

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

- (i) What is soil formation called?
 (ii) Write the name of any one rootless free floating plant.
 (iii) Write the name of movement found in "Touch me not" plant.
 (iv) By which insect lac is obtained?
 (v) When is World Environment Day celebrated?

4. Match the column : 5

Column 'A'

Column 'B'

- | | |
|----------------------|-------------------------|
| (1) Tubectomy | (i) Anthrax |
| (2) Ratan Jot | (ii) Humulin |
| (3) Cow | (iii) Bacterial disease |
| (4) Man-made insulin | (iv) Biofuel |
| (5) Typhoid | (v) Population control |

Section-B (Very Short Answer Type Questions)

5. Write two functions of HCl. 2

(Or) Write two functions of cerebrospinal fluid.

6. Write two significances of Double fertilization. 2

(Or) Define vernalization and write its two advantages.

7. Write two functions of Gibberellin hormone. 2

(Or) Write two advantages of cross-pollination.

8. Write any two adaptations of Aquatic plants. 2

(Or) Write two harmful effects of 'Greenhouse'

(Short Answer Type Questions)

9. Draw the well labelled diagram of Human Nephron and define Haemodialysis. 4

(Or) Define 'Joints' and explain 'Ball and Socket Joint' with diagram.

10. Explain in brief transport of CO_2 in respiration. 4

(Or) Explain 'Reflex-action' in short.

11. Draw only ray-diagram of spermatogenesis. 4

(Or) Draw the well labelled diagram of longitudinal section of Ovule.

12. Write the name of any four medicinal plants and write one use of each one of them. 4
- (Or) Write any four National efforts for the conservation of Natural resources.
13. What is vermi compost manure? Write its significance. 4
- (Or) Write any four efforts to control population.

(Long Answer Type Questions)

14. Explain Hydroponics (soilless culture) with diagram. Write its two advantages. 5
- (Or) Explain 'Dixon-Jolly' theory of Ascent of sap with diagram.
15. Draw the well labelled diagram of V.S. of Human Eye. 5
- (Or) Draw the well labelled diagram of internal structure of Human Heart.
16. Define air pollution and write its any four effects on environment. 5
- (Or) Write five causes responsible for extinction of Wildlife.

(Long Answer Type Questions)

17. Write differences between C_3 and C_4 plants. 6
- (Or) Write differences between Aerobic and Anaerobic respiration.
18. Explain the common problems of Adolescence. 6
- (Or) Explain the following in short :
- (a) G.M. Crops;
 - (b) Bio-patent;
 - (c) Vaccination.