



Bio-Botany

I. Choose The Correct Answer:

[3 x 1 = 3]

1. Vexillary aestivation is characteristic of the family
 - a. Fabaceae
 - b. Asteraceae
 - c. Solanaceae
 - d. Brassicaceae
2. Phylogenetic classification is the most favoured classification because it reflects
 - a. Comparative Anatomy
 - b. Number of flowers produced
 - c. Comparative cytology
 - d. Evolutionary relationships
3. The number of lenses in a compound microscope are?
 - a. 2
 - b. 2
 - c. 4
 - d. many

II. Answer any 3 of the following questions:

[3 x 2 = 6]

4. What is Androeceum? Mention the importance.
5. Define species.
6. What are the differences between plant and animal cell? (any four)
7. Differentiate mitosis and meiosis (any four).

III. Answer any 2 of the following questions:

[2 x 3 = 6]

8. Write a short note on gynoecium.
9. What is taxonomic hierarchy?
10. State cell theory.

IV. Answer any 2 of the following questions:

[2 x 5 = 10]

11. Draw the floral diagram of *Hibiscus*.
12. Give the floral characteristics of *Clitoria*.
13. Describe the structure of chloroplast.

NOTE: SEPARATE PAPER FOR BOTANY AND ZOOLOGY

Bio-Zoology

I. Choose The Correct Answer:

[3 x 1 = 3]

1. Which of the following is not the function of liver?
(a) Production of insulin (b) Detoxification
(c) Storage of glycogen (d) Production of bile
2. The clitellum is a distinct part in the body of earthworm *Lampito mauritii*, it is found in?
(a) Segments 13-14 (b) Segments 14-17
(c) Segments 12-13 (d) Segments 14-16
3. Breathing is controlled by
(a) Cerebrum (b) medulla oblongata (c) cerebellum (d) pons

II. Answer any 3 of the following questions:

[3 x 2 = 6]

4. What are earthworm casts?
5. Air moving from the nose to the trachea passes through a number of structures. List in order the structures.
6. Distinguish between mitral valve and semilunar valve.
7. Resistance in the airways is typically low. Why? Give two reasons.

III. Answer any 2 of the following questions:

[2 x 3 = 6]

8. Why are villi present in the intestine and not in the stomach?
9. Write the types of respiration seen in frog.
10. What is lymph? Write its function.

IV. Answer any 2 of the following questions:

[2 x 5 = 10]

11. List the chemical changes that starch molecule undergoes from the time it reaches the small intestine.
12. Explain the male reproductive system of frog.
13. Describe the mechanism by which the human heart beat is initiated and controlled.

-----ALL THE BEST-----