Central Tribal University of Andhra Pradesh
End Semester Examinations-June/July-2024

Name of the Program : **B.Sc. Botany**
Name of the Subject : **Plant Morphology and Anatomy**
Subject Code: BOT151 **Semester: II**
Time: 3 hours **Total Marks: 70**

Part-A

Answer the following questions. Each question carries 1mark. (10qx1m = 10M)

1. Which of the following tissues is responsible for the transport of water and minerals in plants?a) Epidermal tissueb) Parenchyma tissuec) Collenchyma tissue d) Vascular tissue
2. Which of the following is not a function of the root system in plants? a) Anchorageb) Absorption of water and mineralsc)Photosynthesis d) Storage of food
3. Which of the following is not a function of the stem in plants? a) Supportb)Photosynthesis c) Conduction of water and mineralsd) Storage of food
4. The arrangement of leaves on a stem is called:a) Venation b) Phyllotaxy c) Internode d) Stolon
5. Which of the following plant parts develops from the ovule after fertilization?a) Seedb) Fruit c) Flower d) Root
6. The modified leaf that protects the flower in its bud stage is called: a) Sepal b) Petal c) Stamen d) Carpel
7. The part of the flower that contains the pollen grains is the: a) Sepal b) Petal c) Stamen d) Carpel
8. A root hair does not contain a) Vacuole b) Chloroplast c) Cell wall d) Nucleus
9. Vivipary is the characteristics of a) Mesophytes b) Xerophytes c) Hydrophytes d) Halophytes
10. Leaves are attached to the stem at a) Internodes b) Nodes c) Apical meristem d) All

Part-B

Answer any four short answer questions each question carries 5 marks. (4qx5m = 20M)

11. What do you understand by double fertilization.
12. What comes in post fertilization developments? Explain it.
13. What is parthenocarpy and parthenogenesis?
14. What do you understand by apomictic seeds?
15. How does monoecious flowers differ from dioecious flowers?
16. Explain the phylloclades with image.

Part-C

Answer all the long answer questions either "A" or "B"; each carrying 10 marks.

(4qx10m = 40M)

17. a)Describe how the various endosperm types in angiosperms evolves.

OR

b) Describe the traits of leaves, alterations, and purposes of leaves.

18. a) Give four types of underground stem and give examples for each.

OR

b) Describe various stem modifications associated with food storage, climbing and protection.

19. a) Describe the various types of placentation found in flowering plants & represent them diagrammatically.

OR

b) What is a flower? Describe the parts of typical angiosperm plants with the help of a diagram.

20. a) Describe double fertilization and triple fusion in angiosperms and explain its significance.

OR

b) Explain the pre-fertilization and post-fertilization events occurring in flowering plants.