SET-'A'

B.Sc. Life Science / Semester III Unique Paper Code: 42164301

Paper Title: Plant Anatomy and Embryology

Time: 3 + 1 Hours Maximum Marks: 75

(Write your University Roll Number and Paper Title and Unique Paper Code on top of the Answer Sheet)

Attempt any four questions in all. All questions carry equal marks (i.e., 18.75).

- Q1. What do you understand by cambial zone? Using well-labeled diagrams describe how it is involved in the growth of a stem.
- Q2. Discuss various anatomical adaptations in hydrophytes and xerophytes with the help of suitable examples and well-labeled diagrams.
- Q3. While labeling the newly prepared slides of *Helianthus* plant parts, the museum curator mixed up the labels. How can he distinguish the slides of root and stem of the plant? Explain using well-labeled diagrams.
- Q4. Discuss the significance of sexual reproduction? With the help of a flowchart, describe the process of sexual reproduction in an angiosperm.
- Q5. What is the significance of cross pollination? Write a brief account of the various strategies adopted by angiosperms to transfer pollen from anther of one flower to stigma of another flower.
- Q6. What is double fertilization? Describe the development of the two products of double fertilization during the formation of a dicotyledonous seed. Support your answer with well-labeled diagrams.