

**B. Sc. Honours Examination
(Under CBCS Pattern)
Semester: IV
Sub: Botany
Paper: GE4 (Theory and Practical)
(Plant Anatomy and Embryology)**

Part A: Plant Anatomy and Embryology (Theory)

Answer any **one question** from the following (Within 200 words):

1. Describe the structure and different types of ovules.
2. What do you mean by double fertilization?
3. What do you mean by apomixis? How many types of endosperm are present? Write the function of endosperm.
4. What is Secondary growth? Write the differences between heart wood and sap wood.
5. With proper diagram and label describe the structure of a mature embryo.
6. What is polyembryony? What do you mean by parthenocarpy?
7. Point out the morphological characteristic adaptation of xerophytes.
8. Describe the different types of pollination in flowering plants
9. Write the differences between monocot and dicot roots.
10. What is stomata? Describe the structure and function of stomata.

Part B: Plant Anatomy and Embryology (Practical)

Answer any **one question** from the following (Within 200 words):

1. Draw and label the transverse section of Zea mays stem.
2. Draw and label the transverse section of Helianthus stem.
3. Draw and label the transverse section of the root of Zea mays.
4. Draw and label the transverse section of the root of Helianthus sp.
5. What are the identifying characters of a monocot leaf?
6. Write the identifying characters of a dicot leaf.