

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**S. Y. B. Sc. Sem-III : WINTER :- 2021**  
**SUBJECT: BOTANY : PLANT ANATOMY & EMBRYOLOGY**

**Day : Monday**  
**Date 31-01-2022**

**W-18353-2021**

**Time : 10:00 AM-01:00 PM**  
**Max. Marks: 60**

---

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagrams **WHEREVER** necessary.

- 
- Q.1** Attempt any **TWO** of the following: **(12)**
- a) Explain normal secondary growth in dicot stem.
  - b) What is trichome? Give its various types with an example.
  - c) Give the functions of mechanical tissue system.
- Q.2** Attempt any **TWO** of the following: **(12)**
- a) Write a note on shoot apical meristem.
  - b) Explain anomalous secondary growth in *Borrhaevia*.
  - c) Comment on crassinucellate ovule.
- Q.3** Attempt any **TWO** of the following: **(12)**
- a) Describe various types of stomata with suitable example.
  - b) Describe primary structure of monocotyledon stem.
  - c) Comment on organization of primary plant body.
- Q.4** Attempt any **THREE** of the following: **(12)**
- a) Write in short histogen theory.
  - b) Give types of embryo sac and comment on bisporic embryo sac.
  - c) What is syngamy? Sketch, label and give suitable example.
  - d) What is megasporangium? Explain sporangium in plants.
- Q.5** Attempt any **FOUR** of the following: **(12)**
- a) Describe pollen structure and function in short.
  - b) Sketch and label structure of stomata.
  - c) Explain tetrasporic embryo sac.
  - d) Comment on helobial endosperm.
  - e) Describe amphitropous ovule.
  - f) Give structure and functions of bulliform cells.

\* \* \*