

BSBOT – MI 401

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2025

Fourth Semester

Minor – I

Botany

**ANATOMY AND EMBRYOLOGY OF
ANGIOSPERMS**

(New Regulation)

(w.e.f 2023-24 Admitted Batch)

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE of the following questions.

1. Differentiate between simple and complex permanent tissue.
2. Discuss about anomalous secondary growth in stem with examples.
3. Explain the structure of anther wall.

4. What is double fertilization. Explain its significance.
5. Define polyembryony and give its classification.
6. Write about the economic importance of rose wood.
7. Discuss about the different types of endosperm.
8. Explain the significance of callose deposition during micro sporogenesis.

SECTION B — ($5 \times 10 = 50$ marks)

Answer ALL the following questions.

UNIT I

9. (a) Explain in detailed about Tunica-Corpus theory of shoot apical meristem organization.

Or

- (b) Discuss about the different types of meristematic tissues in plants.

UNIT II

10. (a) Describe the anomalous secondary growth in root of Beta Vulgaris.

Or

- (b) Write about the structure and function of epidermal tissue system.

UNIT III

11. (a) Explain the development of the male gametophyte in angiosperms.

Or

- (b) Discuss in detailed about the process of microsporogenesis.

UNIT IV

12. (a) Describe the structure and development of tetrasporic type of embryo sac in angiosperms.

Or

- (b) Discuss about the various method to overcome self-incompatibility.

UNIT V

13. (a) Describe the process of embryogeny in monocots.

Or

- (b) Discuss about the importance of seed dispersal mechanism.

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Fourth Semester

Botany Minor II

PLANT ECOLOGY BIODIVERSITY AND PHYTOGEOGRAPHY

(w.e.f. 2023-24 Admitted Batch)

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 5 = 25 marks)

Answer any FIVE of the following questions.

1. Write short note on food chain and food web.
2. Define community ecology and its role in ecosystem stability.
3. Explain the role of plant indicators in environmental monitoring.
4. How does habitat destruction impact biodiversity?
5. Discuss about phytogeographic regions of India.

6. How do plants interact with each other in an ecosystem?
7. Differentiate between primary and secondary succession.
8. Write short note on global warming.

SECTION B — (5 × 10 = 50 marks)

Answer ALL the following questions.

UNIT – I

9. (a) Define ecology and discuss about its branches and significance.

Or

- (b) Discuss about the biotic and biotic components of ecosystem.

UNIT – II

10. (a) Write short note on :
 - (i) NPP
 - (ii) Community respiration

Or

- (b) Discuss about the characteristics of population ecology.

UNIT – III

11. (a) Explain the Montreal and Kyoto Protocol.

Or

- (b) Discuss in detailed about the causes, consequences and management strategies of deforestation.

UNIT – IV

12. (a) Describe the biodiversity hotspots of India.

Or

- (b) Discuss the principles of conservation and RED data book.

UNIT – V

13. (a) Explain the principles of phytogeography and the different types of species distribution.

Or

- (b) Discuss about the vegetation types found in Andhra Pradesh.