

4/BOT-252(Th) Syllabus-2023

2026

(May-June)

FYUP : 4th Semester Examination

BOTANY

(Reproductive Biology of Angiosperms)

(BOT-252)

(Theory)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions.*

Answer Question No. 1 which is compulsory and **four** from the rest, selecting **one** from each Section.

1. Write short notes on the following : $4 \times 4 = 16$

- (a) Endothelium
- (b) In vitro pollination
- (c) Helobial endosperm
- (d) Pollen allergy

SECTION—I

2. Explain the following : $5 \times 2 = 10$
- (a) Microsporogenesis in angiosperms
- (b) Role of pollen morphology in plant taxonomy
3. What is megagametogenesis? With the help of suitable diagrams, describe the development of monosporic type of embryo sacs in angiosperms. $2 + 8 = 10$

SECTION—II

4. What is double fertilization? Describe briefly how the structure of stigma and style influence germination of pollen grain and entry of pollen tube in pistil during fertilization in angiosperms. $2 + 4 + 4 = 10$
5. Write notes on the following : $5 \times 2 = 10$
- (a) Endosperm haustoria in angiosperms
- (b) Gametophytic self-incompatibility

SECTION—III

6. What is polyembryony? Describe the various types of polyembryony in angiosperms and mention its applications in crop improvement. $2 + 5 + 3 = 10$

7. What are the criteria used to classify seeds into different types? With suitable examples, describe the various structures of dicotyledonous albuminous and exalbuminous seeds. $2 + 4 + 4 = 10$

SECTION—IV

8. Discuss the following : $5 \times 2 = 10$
- (a) Tapetum and its functions
- (b) Structure and function of suspensor
9. Write notes on the following : $5 \times 2 = 10$
- (a) Apomixis and its significance
- (b) Pollen wall
