

BBYCT-135

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

(Plant Anatomy and Embryology)

Valid from 1st January, 2025 to 31st December, 2025



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi
New Delhi-110068**

(2025)

Dear Student,

Please read the section on assignments in the Programme Guide for B. Sc. that we sent you after your enrolment. A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The assignment is in this booklet, and is of 100 marks, of which 35% are needed to pass it.

Instructions for formatting your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT NO.:

STUDY CENTRE: **DATE:**

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Solve this assignment, and **submit the complete assignment answer sheets within the due date.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted.**
We strongly suggest that you retain a copy of your answer sheets.
- 7) This assignment is **valid from 1st January 2025 to 31st December, 2025.** If you have failed in this assignment or fail to submit it by December, 2025, then you need to get the assignment for the year 2026, and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the examination form for this course** until you have submitted this assignment.

We wish you good luck.

ASSIGNMENT

Course Code: BBYCT-135
Assignment Code: BBYCT-135/TMA/2025
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it.

1. a) Define the following terms : (1×10=10)
 - i) Quiescent center
 - ii) Mangroves
 - iii) Adventive embryos
 - iv) Tyloses
 - v) Dichogamy
 - vi) Apomixis
 - vii) Cross pollination
 - viii) Osteosclereids
 - ix) Phelloderm
 - x) Heterophylly
2. a) Enlist the major characteristic features of halophytes. (5)
- b) List various types of simple and complex tissues. Describe complex tissues with suitable diagrams. (5)
3. Describe the structure of embryo sac with the help of a well labelled diagram. (10)
4. a) List various types of ovules and describe them with outline diagrams. (5)
- b) Define apomixis and list its types. Discuss various causes of apomixis and its importance. (5)
5. Enlist the categories of xerophytes. Describe the morphological and anatomical adaptations found in xerophytes. (3+7=10)
6. a) What is parthenocarpy. Describe various types of parthenocarpy found in plants. (5)
- b) Explain incompatibility and describe its types and significance. (5)
7. With the help of well labeled diagram describe the ABC Model of Flower Organization. (10)
8. Describe syngamy and triple fusion in angiosperms with the help of a well labelled diagram. Enlist the major functions of endosperm in plants. (10)
9. Differentiate between: (2×5=10)
 - i) Porous and non-porous wood
 - ii) Dicot stem and monocot stem
 - iii) Open and closed style
 - iv) Heartwood and sapwood
 - v) Glandular and non-glandular trichomes

10. Write short notes on:

(2½×4=10)

- i) Aerial roots
- ii) Rhizomes
- iii) Cambial variant in stems
- iv) Dendrochronology