

**BBYCT-135**

**ASSIGNMENT BOOKLET**

**Bachelor's Degree Programme**

**(BSCG)**

**(Plant Anatomy and Embryology)**

**Valid from 1<sup>st</sup> January, 2024 to 31<sup>st</sup> December, 2024**



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

**(2024)**

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:

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**ROLL NO.:** .....

**NAME:** .....

**ADDRESS:** .....

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**COURSE CODE:** .....

**COURSE TITLE:** .....

**ASSIGNMENT NO.:** .....

**STUDY CENTRE:** ..... **DATE:** .....

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**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 1<sup>st</sup> January 2024 to 31<sup>st</sup> December, 2024.** If you have failed in this assignment or fail to submit it by December, 2024, then you need to get the assignment for the year 2025, 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/2024  
Maximum Marks: 100

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

1. Write short notes on the following: (2×10=20)
  - i) Plasmodesmata
  - ii) Plastochron
  - iii) Statolith
  - iv) Velamen
  - v) Mycorrhiza
  - vi) Phylloclade
  - vii) Dendroclimatology
  - viii) Tylosis
  - ix) Cystolith
  - x) Resurrection plants
2. a) Enlist main characteristics of meristematic tissues. (4)  
b) Classify meristems into different types on the basis of the plane of division and function in the plant body. (6)
3. Describe in brief the shoot and root apical organization according to Histogen theory. (10)
4. a) Enlist anatomical characteristics that distinguish a primary root of a seed plant. (5)  
b) With the help of a well labeled diagram compare the internal tissue organization of a primary dicotyledonous and monocotyledonous root. (5)
5. a) With the help of well labeled diagram describe the structure of a stomata. (10)  
b) Describe the functions of stomata. Classify the stomata on the basis of ontogeny and morphology. (5+5=10)
6. What are Trichomes? Describe different types of Trichomes and their role in defense of plants. (10)
7. With the help of well labeled diagram describe the ABC Model of Flower Organization (10)
8. What is Apomixis? Describe the sporophytic and gametophytic apomixis. (10)