

**ASSIGNMENT BOOKLET**  
**Bachelor's Degree Programme (B.Sc.)**

**Plant Diversity-II**

**Valid from 1<sup>st</sup> January 2025 to 31<sup>st</sup> December 2025**

**It is compulsory to submit the Assignment before filling in the  
Term-End Examination Form.**

**Please Note**

- You can take electives '56 to 64' credits from a minimum of TWO and a maximum of FOUR science disciplines, viz. Physics, Chemistry, Life Sciences and Mathematics.
- You can opt for elective courses worth a MINIMUM OF 8 CREDITS and a MAXIMUM OF 48 CREDITS from any of these four disciplines.
- At least 25% of the total credits that you register for in the elective courses from Life Sciences, Chemistry and Physics disciplines must be from the laboratory courses. For example, if you opt for a total of 64 credits of electives in these 3 disciplines, at least 16 credits 'out of those 64 credits' should be from lab courses.
- You cannot appear in the Term-End Examination of any course without registering for the course. Otherwise, your result will not be declared and the 'responsibility will be yours'.



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

**(2025)**

Dear Student,

We hope you are familiar with the system of evaluation to be followed for the Bachelor's Degree Programme. At this stage you may probably like to re-read the section on assignments for Elective Courses in the Programme Guide 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 (TMA)** for this course.

### Instructions for Formatting Your Assignments

Before attempting the assignment please read the following instructions carefully.

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

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ENROLMENT NO.: .....

NAME : .....

ADDRESS .....

.....

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) While solving problems, clearly indicate the question number along with the part being solved. Be precise.
- 6) **This assignment will remain valid for one year from January 1, 2025 to December 31, 2025.** However, you are advised to submit it within **12 weeks** of receiving this booklet to accomplish its purpose as a teaching-tool. Answer sheets received after the due date shall not be accepted.
- 7) **You cannot fill the exam form for this course until you have submitted this assignment.**

**We strongly feel that you should retain a copy of your assignment response to avoid any unforeseen situation and append, if possible, a photocopy of this booklet with your response.**

We wish you good luck!

## ASSIGNMENT (Tutor Marked Assignment)

Course Code: LSE-13  
Assignment Code: LSE-13/TMA/2025  
Max. Marks: 100

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1. Give the botanical names of the following: (1×10=10)
  - i) Gram
  - ii) Walnut
  - iii) Cucumber
  - iv) Cardamom
  - v) Ergot
  - vi) Belladonna
  - vii) Shisham
  - viii) Rubber
  - ix) Cinnamon
  - x) Saffron
  
2. Briefly explain the following terms and write the name of the family where the structure is found. (2×5=10)
  - i) Diadelphous Stamens
  - ii) Phylloclade
  - iii) Verticillaster Inflorescence
  - iv) Protogynous flowers
  - v) Gynostegium
  
3. Depict the following through clear and labeled diagram: (2½×4=10)
  - i) T.S. of needle of *Pinus*
  - ii) T.S. of coralloid root of *Cycas* with magnified view of algal zone.
  - iii) Cross section through the vascular bundle of *Zea* stem showing Y shaped xylem.
  - iv) L.S. of bulb of onion
  
4. Name the families in which these structures are found : (1×10=10)
  - i) Hypanthodium
  - ii) Tetrodynamous androecium
  - iii) Convolute anthers
  - iv) Capitulum inflorescence
  - v) Intra-petiolar stipules
  - vi) Culm
  - vii) Obdiplostemonous androecium
  - viii) Jaculator
  - ix) Gynobasic style
  - x) Pseudostem
  
5. Compare and contrast the reproductive structures of *Cycas* and *Pinus* with diagrams. (10)
  
6. Compare the family Asteraceae and Rubiaceae and mention their similarities as well as differences also. (10)

7. Discuss why angiosperms are far more successful than any other plant group in the plant kingdom. (10)
8. Compare the families Arecaceae and Poaceae with the reference to the following features: (10)  
Leaf, inflorescence, flowers, androecium, gynoecium
9. Write the steps involved from the time coffee berries are plucked until drinking coffee powder is prepared. (10)
10. Write short notes on the following: (2½×4=10)
- i) Simple tissues
  - ii) *Ginkgo biloba*
  - iii) Ply wood
  - iv) Jute