

**BBYCT-133**

# **ASSIGNMENT BOOKLET**

**Bachelor's Degree Programme**

**(BSCG)**

**(Plant Ecology and Taxonomy)**

**Valid from 1<sup>st</sup> January, 2025 to 31<sup>st</sup> 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 it consists of two parts, Part A and B. The total marks of all the parts are 100, 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, 2025 to 31<sup>st</sup> 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

## (Tutor Marked Assignment)

Course Code: **BBYCT-133**  
Assignment Code: **BBYCT-133/TMA/2025**  
Maximum Marks: **100**

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

1. a) Answer in one word: (3)
  - i) The green plants which constitute the first trophic level of the food chain.
  - ii) A stage in which communities reach a stage of equilibrium.
  - iii) The organism that is eaten up by a predator.
- b) Define the following: (3)
  - i) Biome
  - ii) Net primary productivity
  - iii) Population
- c) Match the following: (4)

i) Aquatic plants	a) Rank designating an organism
ii) Synecology	b) Binomial nomenclature
iii) Taxon	c) Hydrosere
iv) Linnaeus	d) Population/community
2. a) Describe the soil profile with the help of a well labelled diagram. (5)
- b) Enlist the major components of an ecosystem. Explain the importance of these components for the functioning of an ecosystem? (5)
3. What is ecological succession? Explain the phenomenon giving an example of a desert community. (10)
4. Describe the adaptations seen in xerophytes with the help of examples and well labelled diagrams. (10)
5. a) Write notes on fidelity and importance value index. (5)
- b) What are the different functions of herbarium? (5)
6. a) Differentiate between alpha and omega taxonomy. (5)
- b) What are the salient features of structure of taxonomical hierarchy? (5)
7. Outline Bentham and Hooker's system of classification. Mention the advantages and disadvantages of the system. (10)
8. Discuss the different types of terrestrial and aquatic ecosystems. (10)

9. a) Write a note on pyramid of energy. (5)
- b) Discuss the vegetation pattern of Western Himalayas? (5)
10. Write short notes on: (2½×4=10)
- i) Importance of endemics
  - ii) Xerarch
  - iii) Systema Naturae
  - iv) Therophytes