

BBYCT-133

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

(Plant Ecology and Taxonomy)

Valid from 1st January, 2022 to 31st December, 2022



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

(2022)

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 2022 to 31st December, 2022.** If you have failed in this assignment or fail to submit it by December, 2022, then you need to get the assignment for the year 2023, 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

Plant Ecology and Taxonomy

Course Code: BBYCT-133
Assignment Code: BBYCT-133/TMA/2022
Maximum Marks: 100

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 predator.
- b) Define the following: (3)
- i) Biome
 - ii) Net primary productivity
 - iii) Population
- c) Match the following: (4)
- | Column A | Column B |
|-------------------|---------------------------------|
| 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. a) What is a food chain? Give a detailed account of its types with the help of examples. (5)
- b) With the help of a well labelled diagram explain the energy flow within various components of an ecosystem. (5)
4. What is ecological succession? Explain the phenomenon giving an example of a desert community. (10)
5. Describe the adaptations seen in xerophytes with the help of examples and well labelled diagrams. (10)
6. Describe the major phytogeographical regions of India (10)
7. a) Describe water cycle with the help of a well labeled diagram. (5)
- b) What is alpha and omega taxonomy? Explain. (5)

8. a) What are different systems of classification? Describe in brief the salient features of Bentham and Hooker's system of classification. (5)
- b) What is a cladogram? Explain its importance in taxonomic studies. (5)
9. a) Enumerate the applications of numerical taxonomy. (5)
- b) Write a note on Botanical Gardens of the World. (5)
10. Write short notes on the following: (2 × 5= 10)
- i) Hot spots of biodiversity
 - ii) Endemism
 - iii) Heterophyly
 - iv) Periodicals
 - v) Importance of keys in taxonomic studies