

**BBYCT-133**

# **ASSIGNMENT BOOKLET**

**Bachelor's Degree Programme**

**(BSCG)**

**(Plant Ecology and Taxonomy)**

**Valid from 1<sup>st</sup> January, 2021 to 31<sup>st</sup> December, 2021**



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

**(2021)**

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 Part A and Part B of 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 2021 to 31<sup>st</sup> December, 2021.** If you have failed in this assignment or fail to submit it by December, 2021, then you need to get the assignment for the year 2022, 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-133  
Assignment Code: BBYCT-133/TMA/2021  
Maximum Marks: 100

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

1. Define the following: (10)
  - i) Net primary productivity
  - ii) Habitat ecology
  - iii) Autecology
  - iv) Synecology
  - v) Carrying capacity
  - vi) Phenogram
  - vii) Taximetrics
  - viii) Homonym
  - ix) Taxon
  - x) Key
2.
  - a) Describe water cycle on earth with proper labelled diagram. (5)
  - b) Describe soil profile and list its physical and chemical properties. (5)
3.
  - a) Discuss how light becomes optimal and limiting factor in distribution of plants with proper example. (5)
  - b) Describe adaptations in aquatic plants with proper example and diagrams. (5)
4.
  - a) What is a community and describe its characters. (5)
  - b) What is succession? Describe it by giving an example. (5)
5.
  - a) Describe the components of ecosystem with diagrams. Also list types of ecosystems. (5)
  - b) Describe the phytogeographical regions of India (5)
6. Discuss aims and objectives of taxonomy. Describe the four important steps in taxonomy (10)
7. Define key. How will you construct and use a key? Discuss fault and limitations of a key. (1+5+4)
8.
  - a) Differentiate between alpha and omega taxonomy. Discuss how evidences from phytochemistry can help in solving the taxonomical problem. (5)
  - b) Describe the procedures adopted in numerical taxonomy. (5)

9. a) How would you build and interpret a Cladogram, explain with a proper diagram. (5+5)
- b) Discuss the merits and demerits of Engler and Prantl's system of classification.
10. Write short notes on: (2 × 5= 10)
- i) Linnaeus
  - ii) Floras
  - iii) Role of botanical Survey of India
  - iv) Biodiversity hotspot areas in India
  - v) Characteristics of a good key