

**BBYCT-131**

**ASSIGNMENT BOOKLET**

**Bachelor's Degree Programme**

**(BSCM)**

**Biodiversity (Microbes, Algae, Fungi and Archegoniates)**

**Valid from 1<sup>st</sup> January, 2026 to 31<sup>st</sup> December, 2026**



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

**(2026)**

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 2026 to 31<sup>st</sup> December, 2026.** If you have failed in this assignment or fail to submit it by December, 2026, then you need to get the assignment for next year, 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-131  
Assignment Code: BBYCT-131/TMA/2026  
Maximum Marks: 100

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

1. a) "Bacteria have a major impact on human life by their beneficial activities". Elaborate with examples. (5+5=10)  
b) Discuss the lysogenic cycle with a neat diagram.
2. a) Write a short note on Siphonogamous and Zoidogamous plants. (5+5=10)  
b) Describe mycorrhiza. How does it help the host?
3. Write a detailed account on occurrence, morphology and ultrastructure in Cyanophyta. (10)
4. a) Explain the mechanisms of pollination and fertilization in gymnosperms. (5+5=10)  
b) Define heterospory. Explain its biological significance.
5. a) Describe in brief structure and anatomy of crustose or foliose lichens. (5+5=10)  
b) Why bryophytes are considered as pioneers of vegetation? How do they help in preventing soil erosion and recycling of nutrients?
6. a) Enumerate the characteristics of Lycophyta. (5+5=10)  
b) How do pollination and fertilisation occur in *Pinus*? Explain.
7. a) Describe economic importance of Pteridophytes or Gymnosperms. (5+5=10)  
b) Compare the male reproductive structure of *Cycas* and *Pinus*.
8. a) With the help of diagrams, describe the sexual reproduction in *Polysiphonia*. (5+5=10)  
b) Justify gymnosperm seed have remarkable combination of two generations.
9. a) Describe the mechanisms of genetics recombination in bacteria with suitable diagrams. (5+5=10)  
b) With the help of suitable diagram, explain the sexual reproduction in *Funaria*.
10. Write notes on the following: (2 ½×4=10)
  - i) Fungal antibiotics and drugs
  - ii) HIV virus.
  - iii) Clamp connection formation in Basidiomycetes.
  - iv) T.S. of coralloid root of *Cycas*.