

BBYCT-131

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

Biodiversity (Microbes, Algae, Fungi and Archegoniates)

Valid from 1st July, 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 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:

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 July, 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

Course Code: BBYCT-131
Assignment Code: BBYCT-131/TMA/2022
Maximum Marks: 100

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

Part A

1. a) Describe the structure of RNA virus with suitable diagram. (5)
b) Discuss Hershey and Chase experiment with suitable diagram. (5)
2. a) Describe a bacterial cell wall and its adherents with proper diagram (5)
b) Describe transformation in bacteria with suitable diagram. (5)
3. a) 'Algae can be found in diverse type of habitats'. Justify the statement. (5)
b) Describe the different types of life cycles found in algae, illustrate each with suitable diagram. (5)
4. a) Compare the structure of mycelia of *Penicillium* and *Agaricus*. (5)
b) Discuss the role of Lichens as food, medicine and dyes. (5)
5. Discuss the adaptive strategies developed by aqueous plants during the phase(s) of transition to land habitat. (10)

Part B

6. Compare the characteristics of liverworts, hornworts and mosses in a tabular form with suitable diagrams (10)
7. Only through labelled diagram show: (5×4=20)
 - a) Vertical transverse section of a thallus of *Marchantia*.
 - b) L.S. capsule showing annulus and apophysis with stoma of *Funaria*.
 - c) T.S. of a young root *Pinus* sp. after secondary growth has been established.
 - d) T.S. of coralloid root of *Cycas* sp.
8. Draw the labelled life cycle of a heterosporous pteridophyte. (5)
9. Discuss why is the seed of gymnosperms considered having remarkable combination of two generation. (5)
10. Write notes on the following : (2×5=10)
 - i) Economic importance of bacteria
 - ii) Ecological significance of mycorrhiza
 - iii) Telome theory
 - iv) Economic importance of pteridophytes
 - v) *Rhynia*

-x-x-x-