

BBYCT-131

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

Biodiversity (Microbes, Algae, Fungi and Archegoniates)

Valid from 1st July, 2021 to 30th June, 2022



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

(2021-2022)

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, 2021 to 30th June, 2022.** If you have failed in this assignment or fail to submit it by June, 2022, then you need to get the assignment for the year 2022-23, 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/2021-2022
Maximum Marks: 100

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- Note: Attempt all questions. The marks for each question are indicated against it.**
- | | Marks |
|---|----------|
| 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 <i>Penicillium</i> and <i>Agaricus</i> . | (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) |
| 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 <i>Marchantia</i> . | |
| b) L.S. capsule showing annulus and apophysis with stoma of <i>Funaria</i> . | |
| c) T.S. of a young root <i>Pinus</i> sp. after secondary growth has been established. | |
| d) T.S. of coralloid root of <i>Cycas</i> 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) <i>Rhynia</i> | |

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