

BBYET-143

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

(BSCG)

(Economic Botany and Biotechnology)

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 of 100 marks. You need 35% marks to pass the assignment.

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

Economic Botany and Biotechnology

Course Code: BBYET-143

Assignment Code: BBYET-143/TMA/2022

Maximum Marks: 100

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

1. a) Answer in one word: (5)
 - i) The hypothesis of centre of origin of crop plants was given by which scientist.
 - ii) The transition from gathering of the wild plants to their cultivation.
 - iii) Chief centre of origin of potato.
 - iv) Inflorescence of wheat.
 - v) The part of coconut used for extracting oil.
- b) Define the following: (5)
 - i) Landraces
 - ii) Germplasm
 - iii) Genetic diversity
 - iv) Pseudocereals
 - v) Condiment
2. a) What is genetic erosion? List the major reasons responsible for it. (5)
- b) Differentiate between *ex situ* and *in situ* conservation. (5)
3. a) Legumes are considered as nutritionally important foods? Explain the statement with the help of suitable examples. (5)
- b) Write a detailed note on economic importance of spices. (5)
4. a) What are alcoholic and non-alcoholic beverages? Give a brief account of major beverages consumed in India. (5)
- b) Enlist the major uses of cotton and jute. (5)
5. Name few medicinal plants. Describe their identifying features, region of cultivation and major uses. (10)
6. a) What is suspension culture? Describe its advantages in plant tissue culture. (5)
- b) Discuss the role of plant tissue culture in germplasm conservation. (5)
7. a) Plant growth regulators form an important component of plant tissue culture medium. Justify the statement. (5)
- b) What is micropropagation? What is its importance? (5)
8. Write short notes on: (2 × 5 = 10)
 - i) Totipotency
 - ii) Androgenesis
 - iii) Cryopreservation

- iv) ELISA technique
 - v) Important oil crops of India
9. Describe in detail various applications of Plant tissue culture technique. (10)
10. a) Differentiate between Northern, Southern and Western blotting. (5)
- b) What is recombinant DNA? Enlist the major steps involved in formation of recombinant DNA. (5)