

ASSIGNMENT BOOKLET

**Bachelor (Hons.) Degree in BIOCHEMISTRY (BSCBCH) / B.Sc. (Major)
Biochemistry (BSCFBC)**

MOLECULAR BASIS OF NON-INFECTIOUS HUMAN DISEASES

Valid from 1st January, 2026 to 31st December, 2026

Last date for the assignment submission is on or before 31st December, 2026.



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

Dear Student,

Please read the section on assignments in the Programme Guide of B.Sc. (Hons.) Biochemistry (BSCBCH) and B.Sc. (Major) Biochemistry (BSCFBC) that we sent you after your enrolment. A weightage of 30 percent, as you are aware, has been earmarked for continuous evaluation, **which would consist of one tutor-marked assignment** for this course. The total marks of all the parts are 100, of which 35% are needed to pass it.

SPECIFIC INSTRUCTIONS FOR TUTOR MARKED ASSIGNMENTS (TMA)

- 1) Write your Enrolment Number, Name, Full Address, Signature and Date on the top right hand corner of the first page of your response sheet.
- 2) Write the Programme Title, Course Code, Course Title, Assignment Code and Name of your Study Centre on the left hand corner of the first page of your response sheet.

Course Code and Assignment Code may be reproduced from the assignment.

The top of the first page of your response sheet should look like this:

ENROLMENT NO.:

PROGRAMME TITLE	:	NAME:
COURSE CODE	:	ADDRESS:
COURSE TITLE	:
ASSIGNMENT CODE	:	SIGNATURE:
STUDY CENTRE	:	DATE:

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 3) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 4) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 5) Your answers should be precise.
- 6) Solve questions of the assignment, and submit the complete assignment answer sheets within the due date.
- 7) 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.
- 8) We strongly suggest that you retain a copy of your answer sheets.
- 9) **This assignment is valid from 1st January, 2026 to 31st 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 the year 2027, and submit it as per the instructions given in the Programme Guide.
- 10) You cannot fill the exam form for this course till you have submitted this assignment.

We wish you good luck!

Assignment

Molecular Basis of Non-infectious Human Diseases

Course Code: **BBCET-145**

Assignment code: **BBCET-145/TMA/2026**

Maximum marks: **100**

Note: Attempt all questions.

1. a) Discuss the healthy diet and unhealthy diet for public health. (5)
b) Explain recommended dietary allowances (RDA). (5)
2. (a) Explain the role of vitamin C in collagen synthesis. (5)
(b) Differentiate between marasmus and kwashiorkor. (5)
3. a) Enlist the vitamin A deficiencies and briefly discuss their treatment strategies. (5)
(b) What are lifestyle disorders? Enlist key points for their management. (5)
4. a) Describe briefly the developmental stages of atherosclerosis. (5)
b) Write an overview on Irritable Bowel Syndrome. (5)
5. Define the polycystic ovary syndrome. Explain its causes, symptoms and treatment. (10)
5. a) Discuss the tumor viruses. Give example of each. (5)
b) Mention the common tumor markers. (5)
7. (a) Write about the causes and types of dementia. (5)
(b) Describe the role of ubiquitin and Proteasome in the degradation of misfolded proteins. (5)
8. Describe the Parkinson disease. (10)
9. Write the causes and symptoms of the following inherited disorder: (5+5=10)
a) Maple Syrup Urine Disease (5)
b) Phenylketoria (5)
10. Write short notes on the following: (5+5=10)
(a) Achondroplasia
(b) Long QT syndrome

