

**BBCCT-115**

# **ASSIGNMENT BOOKLET**

**B.Sc. (Major) Biochemistry (BSCFBC)**

## **HUMAN PHYSIOLOGY**

**Valid from 1<sup>st</sup> January, 2025 to 31<sup>st</sup> December, 2025**

**Last date for the assignment submission is on or before 31<sup>th</sup> December 2025.**



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

Dear Learners,

Please read the section on assignments in the Programme Guide of B.Sc. (Hons.) Biochemistry (BSCBCH) 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 this assignment 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:

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**ENROLMENT NO.:**.....

<b>PROGRAMME TITLE :</b> .....	<b>NAME:</b> .....
<b>COURSE CODE :</b> .....	<b>ADDRESS:</b> ..... ..... .....
<b>COURSE TITLE :</b> .....	..... .....
<b>ASSIGNMENT CODE :</b> .....	<b>SIGNATURE:</b> .....
<b>STUDY CENTRE :</b> .....	<b>DATE:</b> .....

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**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 1<sup>st</sup> January, 2025 to 31<sup>th</sup> December, 2025.** If you have failed in this assignment or fail to submit it by December, 2025, then you need to get the assignment for the year 2026, 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

## Human Physiology

Course Code: **BBCCT-115**  
Assignment code: **BBCCT-115/TMA/2025**  
Maximum marks: **100**

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

1. Define homeostasis. Discuss its control system and significance in maintaining the internal environment of the human body. 10
2. What are clotting factors? Briefly describe the process of blood coagulation. 10
3. (a) Illustrate the structure of heart. Explain the steps of cardiac cycle. 5  
(b) Discuss the roles of Renin-angiotensin-aldosterone system in regulation of blood pressure. 5
4. (a) Explain the mechanics of respiration. 5  
(b) Describe the transport mechanisms of oxygen and carbon dioxide in the blood. 5
5. (a) Discuss the process of urine formation in kidney. 5  
(b) Explain how antidiuretic hormone regulates water balance in the body. 5
6. Describe the secretory function of digestive system. 10
7. Discuss the role of liver as metabolic organ. 10
8. (a) Write a brief overview on development of testis and ovary. 5  
(b) Discuss the sliding filament mechanism of skeletal muscle contraction. 5
9. Explain the structure of a typical neuron. How do neurons transmit electrical signals through action potentials? 10
10. Write short note on the following:
  - (a) Sensory receptors 5
  - (b) Sleep cycle 5