

BZYCT-141

ASSIGNMENT BOOKLET

Bachelor's Degree Programme

**(BSCG)
IMMUNOLOGY**

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 Core Courses 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 three parts, Part A, B and C. 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) Complete each of Part A, Part B and Part C of this assignment separately, and **submit them together.**
- 6) The assignment answer sheets are to be submitted to your Study Centre as per the schedule made by the study centre. **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 exam form for this course** till you have submitted this assignment.

We wish you good luck.

ASSIGNMENT IMMUNOLOGY

Course Code: BZYET-141
Assignment Code: BZYET-141/TMA/2022
Maximum Marks: 100

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

Part-A

Maximum Marks: 50

1. Fill in the blanks: (5)
 - i) virus binds to B-cells via type II complement receptors.
 - ii) Antibody toxin complex formed is cleared by
 - iii) A chronic, debilitating disease called schistosomiasis is caused by
 - iv) An occurs when the body attacks its own self-cells tissues and other body constituents.
 - v) RNAase L that degrades the RNA of the virus is activated by an enzyme called
2. Define the following terms: (10)
 - i) Tolerance
 - ii) Autoimmunity
 - iii) Phagocytic barriers of innate immunity
 - iv) Inflammation
 - v) Epitope
3. Expand the following terms: (5)
 - i) PAMPs
 - ii) PRPs
 - iii) DAMPs
 - iv) MBL
 - v) ADCC
4. Write a comparative note on the role of Thymus and Bone marrow with respect to immune response. (10)
5. Explain different pathways that activate complement system and its various effects to eliminate the pathogens. (10)
6. Explain (10)
 - i) Precipitation
 - ii) Neutralization
 - iii) Agglutination
 - iv) Opsonisationwith reference to antigen –antibody interactions.

Part-B

Maximum Marks: 50

7. Discuss different cytokines that act as mediators of innate and adaptive immune systems. (10)
8. Fill in the blanks: (5)
 - i) Humoral immunity results in circulation of throughout the blood.
 - ii) The portion of antibody provides antigen-binding sites.
 - iii) In complement system, cleavage of C5-by-C5 convertase produces which is a chemotaxin that attracts macrophages and neutrophils.
 - iv) Endogenous antigens are presented with for T_c cells interaction.
 - v) The Immunoglobulin which has highest binding valency is
9. Classify the different types of vaccines. (10)
10. Enumerate and described the cells of immune system. (10)
11. Explain any *five* immunological tools and techniques. (15)