

FIFTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION, NOVEMBER 2024

Microbiology

MBG 5B 08—IMMUNOLOGY

(2019 Admission onwards)

Time: Two Hours and a Half

Maximum: 80 Marks

Wherever needed answers must be supported by structural illustrations and diagrams.

Section A

Short answer type questions.
Answer all questions.
Each question carries 2 marks.

Write briefly on:

- 1. Interleukins.
- 2. Innate immunity.
- 3. Hybridoma technique.
- 4. Neutralization.
- 5. CFT.
- 6. Clonal selection theory.
- 7. Epitope *vs* paratope.
- 8. GALT.
- 9. Superantigen.
- 10. Atopy.
- 11. Fab.
- 12. Sandwich ELISA.
- 13. Inflammation.
- 14. Plasma cells.
- 15. Paul Ehrlich.

(Maximum 25 marks)

Turn over

D 110229

Section B

2

Paragraph type questions.
Answer all questions.
Each question carries 5 marks.

Write notes on:

- 1. Structure and functions of IgA.
- 2. Alternate pathway in complement.
- 3. Primary lymphoid organs.
- 4. Describe immune complex mediated hypersensitivity reactions.
- 5. Explain the characteristics of adaptive immunity.
- 6. Tumor antigens.
- 7. Allotype and isotypic determinants.
- 8. Categorize APCs.

(Maximum 35 marks)

Section C

Essay type questions.
Answer any **two** questions.
Each question carries 10 marks.

Write essay on:

- 1. Explain briefly on various cells and functions of immune system. Describe the characteristics and functions of macrophages.
- 2. Discuss the mechanism and classifications of Autoimmune diseases with Example.
- 3. List out different types of Antigen-Antibody reactions. Write briefly on ELISA and agglutination reactions.
- 4. Give detailed account on transplantation immunology. Add the mechanism of graft rejection.

 $(2 \times 10 = 20 \text{ marks})$