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(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, NOVEMBER 2022**

(CBCSS)

Zoology

ZOL 3C 07—IMMUNOLOGY

(2019 Admission onwards)

e : Three Hours

Maximum : 30 Weightage

Part A

I. Answer any *four* of the following. Each question carries 2 weightage :

- 1 Endogenous pathway of antigen processing.
- 2 Properties of B-cell and T-cell epitopes.
- 3 Lymphoid cancer.
- 4 Cross reactivity.
- 5 Antibody engineering.
- 6 Mention the factors that influence immunogenicity.
- 7 Distinguish between isotypes and allotypes.

(4 × 2 = 8 weightage)

Part B

II. Answer any *four* of the following. Each question carries 3 weightage :

- 8 Compare humoral and cellular immunity.
- 9 Describe the structure of a typical immunoglobulin. Write a short note on different types of immunoglobulins.
- 10 Write a short essay on important cytokines in immune mechanisms.
- 11 Write a short essay on systemic autoimmune diseases.
- 12 Write a short essay on the processes of activation, maturation and differentiation of B-cells.



41

2

- 13 Explain the immunological basis of graft rejection.
- 14 Compare Radioimmunoassay and Immunoelectrophoresis.

(4 × 3 = 12 weight)

Part C

III. Answer any *two* of the following. Each question carries 5 weightage :

- 15 Write an essay on different types of vaccines. Briefly describe their merits and demerits.
- 16 Write an essay on the structure of MHC-I and MHC-II molecules. What are their functions?
- 17 Write an essay on immune deficiency diseases.
- 18 Write an essay on complement system in human.

(2 × 5 = 10 weight)