

D 51359

(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, NOVEMBER 2023**

(CBCSS)

Zoology

ZOL 3C 07—IMMUNOLOGY

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* of the following (Short Answer type questions) (Weightage- 2) :

- 1 What are the genes regulating hematopoiesis ?
- 2 Write a structure and function of IgA.
- 3 Write a short note on Radioimmunoassay.
- 4 Pathways for cytokine secretion.
- 5 What is complement regulation ?
- 6 Write the major human transplantation antigens.
- 7 What are recombinant vector vaccines ?

(4 × 2 = 8 weightage)

II. Answer any *four* of the following (Short essay type questions) (Weightage 3) :

- 8 What are Hematopoietic growth factors ? How does it work ? Write their uses.
- 9 Give a detailed account of the Antigenic determinants of immunoglobulin.
- 10 Explain the strength of Antigen-antibody interaction.
- 11 Write the functions of the complement system.
- 12 Write the structural characterization of Non-Peptide Antigens.

Turn over

13 Describe the note on HLA antigens.

14 What is a DNA vaccine ? How do DNA vaccines work ? Explain it.

(4 × 3 = 12 weightage)

III. Answer any *two* of the following (Long essay type questions) (Weightage 5) :

15 What are the factors that influence the immunogenicity of an antigen ?

16 What is ELISA ? Write the types, procedures and applications.

17 What are hypersensitivity reactions. Write a brief note on cytotoxic-mediated response.

18 What is autoimmunity ? Write the immunogenetic mechanisms of organ-specific and systemic autoimmune diseases.

(2 × 5 = 10 weightage)