Reg. No. :

Second Semester M.Sc. Degree (CBCSS – OBE – Regular) Examination, April 2024

(2023 Admission) ZOOLOGY

MSZGY02C11/MSZNG02C11: Immunology

Time: 3 Hours

Max. Marks: 60

PART - A

Write a short note on any five from the following:

 $(3 \times 5 = 15)$

- Lymphoid organs.
- 2. Immunogens.
- Delayed type of hypersensitivity (DTH).
- 4. T-regulatory cells.
- 5. Immunological memory.
- 6. Tumor antigens.

PART - B

Answer any three of the following questions:

 $(6 \times 3 = 18)$

- Explain the structure and functions of the immune cells.
- 8. Write a note on:
 - a) Interaction between innate and adaptive immune systems.
 - b) Regulation of complement system activation.

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- 9. Write a note on:
 - a) Types of vaccines.
 - b) Properties of adjuvants and haptens.
- Write an essay on the structure and function of major histocompatibility complexes.
- 11. Write a note on:
 - a) Antibody classes and their biological activities.
 - b) Therapeutic applications of cytokines.

PART - C

Answer any three of the following questions:

(9×3=27)

- Discuss various immunological tests developed based on agglutination and precipitation reactions.
- Explain the mechanisms of tumor cell evasion of the immune response.
- 14. Describe the various mechanisms used to generate antibody diversity.
- 15. Explain the immunology of organ transplantation.
- 16. Discuss the causes, symptoms and treatment for autoimmune diseases.