(6 pages)

Reg. No.:....

Code No.: 5456

Sub. Code: ZZOM 42

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

Fourth Semester

Zoology - Core

IMMUNOLOGY

(For those who joined in July 2021 onwards)

Time: Three hours

Maximum: 75 marks

PART A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer:

- Name the other name for Natural immunty.
 - (a) Active
 - (b) innate immunity
 - (c) acquired immunity
 - (d) None

- 2. Tell the immunoglobulin which crosses the human placenta is
 - (a) Ig A

(b) Ig I

(c) Ig G

- (d) Ig M
- 3. Recognize the lymphocytes and platelets which contains
 - (a) class I MHC
 - (b) class II MHC
 - (c) class III MHC
 - (d) class IV MHC
- 4. Tell the name of the implanted tissues
 - (a) grafts
 - (b) donor
 - (c) recipient
 - (d) none of them
- Select the T-cell receptor is a protein complex found on the surface of
 - (a) B lymphocytes
 - (b) T lymphocytes
 - (c) plasmocytes
 - (d) cytocytes

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- 6. Name an auto immune disease

 (a) Thyrotoxicosis
 (b) additions disease
 (c) Thrombocytopenia
 (d) all the above
- 7. Locate the place of maturation of T cells after migration from bone marrow,
 - (a) thymus
 - (b) lymph node
 - (c) lymph
 - (d) MALT
- 8. Tolerance is induced by the production of
 - (a) mutation
 - (b) T suppressor cells
 - (c) clonal deletion
 - (d) all the above
- 9. Name the HIV genome consists of two identical single-stranded
 - (a) DNA molecules
 - (b) DNA-RNA
 - (c) RNA molecules
 - (d) zDNA

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- 10. Select the graft that takes place within the same individual is
 - (a) Autograft
 - (b) allograft
 - (c) xenograft
 - (d) all the above

PART B —
$$(5 \times 5 = 25 \text{ marks})$$

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Summarize Structure and functions of IgM.

Or

- (b) Explain the detection of molecules using Western blot techniques.
- 12. (a) Predict the applications of mono clonal antibodies.

Or

- (b) Write a note on Radio immune assay.
- 13. (a) Order the T cell receptor complex.

Or

b) Order the functions of cytokines.

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14. (a) Assess the complement deficiencies.

Or

- (b) Grade the consequences of complement actiation.
- 15. (a) Write a note on immune response for tumour.

Or

(b) Write short note on Viral infections.

PART C — $(5 \times 8 = 40 \text{ marks})$

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the steps involved in recombinant DNA technology.

Or

- (b) Illustrate the Primary lymphoid organ.
- 17. (a) Interpret the functions of major compatibility complex

Or

(b) Write about ELISA and its application.

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18. (a) Order the role of cytokines in the inflammatory responses.

Or

- (b) Explain the steps involved in B- cell activation.
- 19. (a) Analyze the various types of tolerance.

Or

- (b) Discuss the autoimmune diseases in Man.
- 20. (a) Write an essay on clinical manifestation of graft rejection.

Or

(b) Compile the Cancer immunotherapy.

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