

2024

ZOOLOGY — HONOURS

Paper : CC-10

(Immunology)

Full Marks : 50

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer *question no. 1* and *any four* questions from the rest.

1. Answer *any five* questions : 2×5
- (a) What are lymphokines?
 - (b) What is hapten?
 - (c) What do you mean by passive immunization?
 - (d) What are interferons?
 - (e) What is paratope?
 - (f) Define agglutination.
 - (g) What do you mean by 'Tick over'?
 - (h) What are GALT and CALT?
2. (a) Briefly describe how extracellular antigens are processed and presented using suitable diagram.
- (b) "Cytokines control adaptive immune response by regulating T-cell activation and function."
— Justify. (4+1)+5
3. (a) Distinguish between T-Cell and B-Cell.
- (b) How does HAT medium facilitate selection of B-cell hybridoma?
- (c) Briefly discuss solid state RIA and suspension RIA. 2+4+(2+2)
4. (a) What is complement system? Mention its biological significance.
- (b) Describe the classical pathway of complement activation and MAC formation with diagram.
- (c) Name any two diseases that occur due to dysfunction of the complement system. 3+(3+2)+2
5. (a) Briefly discuss the events of T-Cell development.
- (b) Explain the role of T helper Cells in B-Cell activation.
- (c) "All immunogens are antigens, but all antigens are not immunogens." — Justify. 4+3+3

Please Turn Over

6. (a) What is hypersensitivity?
(b) Discuss Gell and Coomb's classification of hypersensitivity reactions.
(c) Differentiate between live and attenuated vaccine. 2+5+3
7. (a) Explain affinity and avidity of antibody.
(b) Briefly discuss the intermolecular forces involved in primary antigen-antibody reactions.
(c) What is perforin? (2+2)+4+2
8. Write short notes on (*any four*) : 2½×4
- (a) Adjuvant
 - (b) Structural organization of thymus
 - (c) Inflammation
 - (d) NK cells
 - (e) ADCC
 - (f) Monoclonal antibody.
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