

U.G. 4th Semester Examination - 2021

ZOOLOGY

[HONOURS]

Course Code : ZOOL-H-CC-T-10

(Immunology)

Full Marks : 20

Time : 1 Hour

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** questions of the following:

1×5=5

- i) Name the immune cell which originates from both lymphoid and myeloid lineages.
- ii) What is opsonization?
- iii) Name the characteristic receptor expressed on the surface of NK cell for ADCC.
- iv) What do you mean by antibody isotype?
- v) What is APC?
- vi) What is meant by pleiotropy property of cytokines?
- vii) What is MBL?
- viii) Define toxoid.

2. Answer any **one** of the following: 5×1=5

- i) List the secondary lymphoid organs in mammals and summarize their functions.

1+4=5

- ii) Distinguish between antigenicity and immunogenicity. How does solubility of antigen affect immune response? What are adjuvants?

2+2+1=5

- iii) What do you mean by activation of complement system in immunity? How many pathways are found in human for activation of complement system? What is MAC?

2+1+2=5

3. Answer any **one** of the following: 10×1=10

- i) Distinguish between innate immunity and adaptive immunity. What do you mean by MHC Class-I and MHC Class-II restricted cells? Discuss the process of generation of inflammatory response by the immune system in man. What are TLRs?

2+2+4+2=10

- ii) List the various types of macrophages found in human tissues. Distinguish between oxygen dependent and oxygen independent killing mechanisms by phagocytic cells. What is the role of mast cell in immunity? Distinguish between white pulp and red pulp of spleen.

2+2+2+4=10

- iii) State the functional difference of IgA and IgD.
What do you mean by antigen-antibody interaction? Why hybridoma technology is important in immunology? 2+4+4=10
