

**U.G. 4th Semester Examination - 2021****MICROBIOLOGY****[HONOURS]****Course Code : MB-H-CC-L-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** of the following questions:

1×5=5

- i) What is herd immunity?
- ii) What is ADCC ?
- iii) What is opsonization?
- iv) What is complement fixation test?
- v) What is superantigen?
- vi) What are the functions of natural killer cells in immune response?
- vii) State the principles of precipitation reaction.
- viii) What is the primary function of lymph node?

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

- i) Differentiate between epitope and paratope.
- ii) How is CTL generated? Describe how a target cell is killed by CTL. 2+3
- iii) Draw a typical B cell receptor and describe the physiological significance its architecture with respect to the B cell activation. 2+3

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

- i) Write the principle and application of different types of ELISA. 5+5
- ii) What are the biological consequences of complement activation? Briefly describe the classical complement activation pathway. 4+6
- iii) Write short notes on: 2½×4
  - a) Haptens
  - b) Adjuvant
  - c) Passive immunization
  - d) Prozone effect

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