

**T.Y.B.SC. SEM – VI (2014 COURSE) : SUMMER - 2018**  
**SUBJECT: MICROBIOLOGY: IMMUNOLOGY (MB-62)**

Day : **Thursday**  
Date : **12/04/2018**

**S-2018-0768**

Time: **12.00 NOON TO 02.00 PM**  
Max. Marks: 40

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**N. B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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**Q.1** Attempt **ANY TWO** of the following : **(10)**

- a) Define the term antigenicity and discuss any one factor affecting antigenicity.
- b) Describe 'Direct Template Theory' for antibody formation.
- c) Give the cytology and functions of 'B lymphocytes'.

**Q.2** Attempt **ANY TWO** of the following : **(10)**

- a) Give mechanism and examples of 'Type III Hypersensitivity'.
- b) What are 'Monoclonal Antibodies'? Give their applications.
- c) Explain the cytokine signaling for antibody formation.

**Q.3** Write short notes on **ANY TWO** of the following : **(10)**

- a)  $\alpha$ - Interferons
- b) Cross over electrophoresis
- c) 'Lactoperoxidase method' of immunolabelling

**Q.4** Attempt **ANY FIVE** of the following : **(10)**

- a) Mention any two functions of 'T lymphocytes'.
- b) Specify the role of 'Interleukin- 1' during inflammation process.
- c) Give any two examples of 'Allotypes of Immunoglobulin'.
- d) What is the significance of cyanogen bromide and gluteraldehyde during ELISA?
- e) Give the applications of 'Immunofluorescence'.
- f) Which of the cellular antigens give positive 'Widal test'.
- g) Mention the role of carrier proteins.

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