

M. SC. (Microbiology) SEM-I (CBCS 2018 Course) : WINTER - 2018
SUBJECT: IMMUNOLOGY

Day: Thursday
Date: 11/10/2018

Time: 03.00 PM TO 06.00 PM
Max. Marks: 60

W-2018-1015

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
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Q.1 Explain multigene organization of 'Immunoglobulin genes'. **(15)**

OR

Describe generation of antibody diversity. **(15)**

Q.2 a) What is hypersensitivity? Discuss the mechanism of 'Type- IV hypersensitivity'. **(08)**

b) Justify the statement that, 'Inflammation is a target for treatment of autoimmunity'. **(07)**

OR

a) Describe clinical manifestations of graft rejection. **(08)**

b) Giving suitable examples discuss 'Tumors of the immune system'. **(07)**

Q.3 Attempt **ANY THREE** of the following: **(15)**

- a) Discuss the structure and significance of MHC class-II molecules.
- b) Giving suitable examples describe 'Class-I cytokine receptor family'.
- c) Describe 'Alternative pathway' for activation of complements.
- d) Comment on 'Leukocyte extravasation'.
- e) Comment on 'Myasthenia gravis'.

Q.4 Write short notes on **ANY THREE** of the following: **(15)**

- a) Type -II hypersensitivity
- b) Animal models for autoimmune diseases
- c) Enhancement of APC activity as a mean of cancer immunotherapy
- d) Mucins
- e) Regulation of compliment activation

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