

SUBJECT: IMMUNOLOGY

Day: Wednesday

Time: 03.00 PM TO 06.00 PM

Date: 10/04/2019

S-2019-1204

Max. Marks: 60

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 the mechanism of variable region DNA rearrangements of immunoglobulins. (15)

OR

Discuss the structure and biological activities of IgM. Also, comment on 'Two gene one polypeptide model'. (15)

Q.2 a) Giving suitable example, explain 'Type-III hypersensitivity'. (08)

b) Describe different approaches used for treatment of autoimmune disease. (07)

OR

a) Explain the role of fungal metabolites and mitotic inhibitors for preventing graft rejection. (08)

b) Comment on 'Tumor antigens'. (07)

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

- a)** Justify the statement that, 'Cytokines and viruses regulates expression of MHC'.
- b)** Describe 'Immunoglobulin super family receptors of cytokines'.
- c)** Comment on the terminology and functions of complement components.
- d)** Describe mediators of inflammation.
- e)** Comment on 'X linked agammaglobunaemia'.

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

- a)** Contact type of hypersensitivity
- b)** Goodpasteure's syndrome
- c)** Malignant transformation of cells
- d)** Intergtrins
- e)** Lectin pathway

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