

SUBJECT: IMMUNOLOGY

Day: - Wednesday
Date: 10/04/2019

S-2019-1215

Time: 03.00 PM TO 06.00 PM
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 What is Antibody Engineering? Discuss the Antibody Engineering of (15)
Chimeric antibodies, Humanised antibodies and Bispecific antibodies.

OR

Describe Gel and Coombs classification of hypersensitivity. Explain type I and type IV hypersensitivity in brief.

Q.2 Answer the following:

- a) Explain Lymphocyte extravasation. (07)
- b) Discuss the structure of MHC class-II molecules and comment on (08)
Transcriptional regulation of MHC.

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

- a) Differentiate between classical and alternative pathways in the formation of membrane attack complex.
- b) What are the secondary immunodeficiencies? Explain with example.
- c) Elaborate on Myasthenia gravis.
- d) What is the mechanism of induction of autoimmunity in Rheumatoid arthritis.
- e) Explain malignant transformation of cells.

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

- a) X-linked Agammaglobulinaemia
- b) Anti-inflammatory agents
- c) Properties of cytokines
- d) IgA
- e) Tumor antigens

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