T.Y. B.Sc. SEM-VI (C.B.C.S-2016 COURSE): SUMMER-2019
SUBJECT: MICROBIOLOGY: IMMUNOLOGY

Day : Wednesday S-2019-0901 Time : 3:00 P.M. To 6:00 P.M
Date : 10-04-2019 Max. Marks: 60

N.B.

1) All Questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SAME** answer book.

Q.1 Attempt **ANY TWO** of the following: **(12)**

a) Explain the production and applications of monoclonal antibodies.
b) Discuss the cytology and functions of T-cell.
c) What is antigenicity? Discuss any two factors affecting antigenicity.

Q.2 Attempt **ANY TWO** of the following: **(12)**

a) Define the term 'Hypersensitivity' and explain the role of IgE in the production of 'Type-I Hypersensitivity'.
b) Describe 'Early Hypothesis' for antibody formation.
c) Justify the statement that, 'Immunogenicity requires both haptens and carrier molecules.

Q.3 Attempt **ANY TWO** of the following: **(12)**

a) Define the term 'paratope'. Explain its properties and significance.
b) Describe the biological significance of 'γ- interferons'.
c) Explain the mechanism of 'Contact Type of Hypersensitivity'

Q.4 Write a short notes on **ANY THREE** of the following: **(12)**

a) Interleukin-1
b) Functions of 'B Lymphocytes'
c) Types of epitope
d) Burnet's clonal selection theory

Q.5 Attempt **ANY FOUR** of the following: **(12)**

a) Enlist microphages and give functions of any one of the enlisted.
b) What are 'Type-I interferons'? Mention their significance.
c) Describe 'Allotypes of immunoglobulin'.
d) Explain idiotopes and idotypes.
e) Discuss IL-10
f) Explain the presentation of antigen though MHC class II molecules.

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