

**S. Y. B. Sc. (Biotechnology) SEM – III (CBCS - 2015 COURSE) :
WINTER - 2018**

Subject: Immunology

Day: Monday
Date: 29/10/2018

W-2018-1177

Time: 02.00 PM TO 05.00 PM
Max. Marks: 60

N.B.:

- 1) Q1 and Q5 are compulsory.
- 2) Answer ANY TWO questions from Q 2, 3, 4 in Section I.
- 3) Answer ANY TWO questions from Q 6, 7, 8 in Section II.
- 4) Answers to Both the sections to be written in SEPARATE answer books.
- 5) Draw a labeled diagram WHEREVER necessary.

SECTION - 01

Q.1) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

- a) Define artificial acquired immunity
- b) Expand the term GALT and NK cells
- c) Define an antigenic determinant or epitope
- d) Name two cells of the lymphoid lineage and state their function
- e) Expand the term TCR and MHC
- f) Name two cytokines produced by T_H1 cells

Q.2) Answer the following: (5 Marks X 2 = 10)

- a) Differentiate between adaptive and innate immune response
- b) Describe the structure and functions of different classes of immunoglobulins

Q.3) Explain the following: (5 Marks X 2 = 10)

- a) Opsonization
- b) What are cytokines? Explain the attributes of cytokines

Q.4) Write short notes on the following: (5 Marks X 2 = 10)

- a) IgA
- b) T_H1 cells

SECTION - 02

Q.5) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

- a) Give two examples of TI antigens.
- b) Expand the term BCR and APC
- c) State the role of histamine
- d) Give two examples of precipitation reaction
- e) Give the composition of C3 convertase in the classical and alternative pathway
- f) Name any two primary mediators of Type I hypersensitivity reaction

Q.6) Answer the following: (5 Marks X 2 = 10)

- a) Explain in detail the difference between endogenous and exogenous antigen presentation
- b) Describe Type III hypersensitivity reaction giving one clinical example

Q.7) Explain the following: (5 Marks X 2 = 10)

- a) Explain the structure and function of MHC-Class-I molecules.
- b) Immuno fluorescence

Q.8) Write short notes on the following: (5 Marks X 2 = 10)

- a) ELISA
- b) Widal test
