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# GAZ-454 Seat No. _____

## B. Sc. (Sem. VI) Examination

**March / April - 2017**

## CC-I-11 : Biotechnology

*(Fundamentals of Immunology)*

Time : **3** Hours] [Total Marks : **70**

**1** Answer the MCQ and Short questions. **15**

(1) _____ antibody is responsible for fetal immunity.

(a) IgA

(b) IgG

(c) IgM

(d) IgE

(2) Vaccination is _____ type of immunity.

(a) Active

(b) Passive

(c) Both (a) & (b)

(d) none of these

(3) Blood born antigens are captured in _____.

(a) Lymph node

(b) Spleen

(c) MALT

(d) CALT

(4) _____ antigen is not activating B cell without help of $T_H$ cell.

(a) TI

(b) TD

(c) Both

(d) None

(5) _____ cell is responsible for Phagocytosis.

(a) Macrophage

(b) Tc

(c) Dendritic

(d) stem

(6) Which of the following is in vivo test?

(a) ELISA

(b) RIA

(c) Neutralization test

(d) All of above

(7) Which of the following is antigen presenting cell?

(a) Dendritic cell

(b) macrophage

(c) B cell

(d) a11 of these

(8) _____ is produced by virally infected cell.

(a) Complements

(b) Interferon

(c) IgG

(d) None of above

(9) Class I MHC molecules are present on

(a) Neutrophil

(b) Basophil

(c) Eosinophil

(d) all nucleated cell

(10) Enlist the gene segments responsible for $V_H$ Domain.

(11) Give the full form of IFT

(12) Name some cytokines produced by $T_H$ cell.

(13) Define Agglutination reaction.

(14) Define Antibody.

(15) Give the full form of ITAM.

2 Write brief notes on the following : (any **five**) **25**

(1) Types of antigens

(2) Structure and function of lymph node

(3) Agglutination reaction

(4) Applications of monoclonal antibody

(5) Differentiate between BCR & TCR

(6) Complement fixation test

(7) Phagocytes and phagocytosis.

3 Write detailed notes on the following: (any **three**) **30**

(1) Cells of acquired immune System

(2) Detailed Structure and types of antibody.

(3) Characteristics of antigens.

(4) T cell generation and differentiation.

(5) ELISA.