



BCF-003-1015009 Seat No. _____

B. Sc. (Sem. V) (W.E.F. 2010) Examination

August – 2021

MB - 501 : Microbiology

(Immunology and Medical Microbiology)

(New Course)

Faculty Code : 003

Subject Code : 1015009

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

Instruction : Answer any five questions out of ten.

- 1 (A) Answer the following : 4
- (1) Give types of natural immunity.
 - (2) Define Herd Immunity.
 - (3) Which organs are known as primary lymphoid organs ?
 - (4) Write full form of CALT, GALT.
- (B) Answer in brief : 2
Explain : Macrophage
- (C) Answer in detail : 3
Give details about phagocytosis.
- (D) Write short note on : 5
MALT
- 2 (A) Answer the following : 4
- (1) What is Immunity ?
 - (2) _____ is the maturation site of T-cell.
 - (3) What is naturally acquired passive immunity ?
 - (4) Write full form of APC.
- (B) Answer in brief : 2
Write a note on NK cells.

- (C) Answer in detail : 3
Explain in detail : stem cell.
- (D) Write short note on : 5
Give the difference between B cell and T cell.
- 3 (A) Answer the following in short. 4
(1) Define Opsonizing.
(2) Give the full form of MHC molecules.
(3) MHC Class I antigen presented to _____.
(4) Enlist the name of phagocytic cells.
- (B) Answer in brief : 2
Give the difference between Humoral and cell mediated immunity.
- (C) Answer in detail : 3
Explain MHC molecules.
- (D) Write short note on : 5
Write about T cell activation.
- 4 (A) Answer the following in short : 4
(1) Define complement system.
(2) Give full form of TNF.
(3) What are interleukins ?
(4) _____ receptor is found on T_H cell.
- (B) Answer in brief : 2
Define immune response and explain its types.
- (C) Answer in detail : 3
Write about killing mechanism of CTLs and NK cells.
- (D) Write short note on : 5
Explain : Cytokines
- 5 (A) Answer the following in short : 4
(1) What are antigens ?
(2) What is immunogenicity ?
(3) Enlist various classes of immunoglobulin.
(4) What is epitope ?
- (B) Answer in brief : 2
Write a note on adjuvant.

- (C) Answer in detail : 3
Describe IgM.
- (D) Write short note on : 5
Explain Monoclonal Antibodies.
- 6** (A) Answer the following in short : 4
(1) Antibodies are made up of _____.
(2) Heavy chain consists of _____ amino acid.
(3) Give full form of CDRs.
(4) Which immunoglobulin is found in trace amounts in blood serum ?
- (B) Answer in brief : 2
Describe IgE.
- (C) Answer in detail : 3
Write about light chain and heavy chain of immunoglobulin.
- (D) Write short note on : 5
Antibody diversity and clonal selection theory.
- 7** (A) Answer the following in short : 4
(1) What is immunodeficiency ?
(2) How immunodeficiency can be classified ?
(3) Give the full form of GVHD.
(4) What is SCID ?
- (B) Answer in brief : 2
Explain mechanism of anaphylaxis.
- (C) Answer in detail : 3
Write in detail about types of transplants.
- (D) Write short note on : 5
Explain tumor antigens.
- 8** (A) Answer the following in short : 4
(1) Give full form of ADCC.
(2) How are secondary immunodeficiencies categorized ?
(3) Write full form of AIDS.
(4) Contact hypersensitivity reaction time is _____ hours.

- (B) Answer in brief : 2
Define Hypersensitivity.
- (C) Answer in detail : 3
Discuss mechanisms of Graft rejection.
- (D) Write short notes on : 5
Autoimmune diseases.
- 9** (A) Answer the following in short : 4
(1) What is Acute infection ?
(2) What is nosocomial infection ?
(3) What is vehicle transmission ?
(4) Define Normal flora.
- (B) Answer in brief : 2
What is pathogenicity ?
- (C) Answer in detail : 3
Normal flora of Gastrointestinal tract.
- (D) Write a note on : 5
Natural Resistance.
- 10** (A) Answer the following in short : 4
(1) What is chronic infection ?
(2) What is primary infection ?
(3) Explain the term opportunistic infection.
(4) _____ harbors the pathogens but has never
suffered from disease caused by it.
- (B) Answer in brief : 2
Write about Host-Microbe interactions.
- (C) Answer in detail : 3
Write about routes of transmission of infection.
- (D) Write short note on : 5
Normal flora of a healthy human host.