

(6 pages)

Reg. No. :

Code No. : 20542 E Sub. Code : CMMI 31

B.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2023.

Third Semester

Microbiology – Core

FUNDAMENTALS OF IMMUNOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Elie Metchnikoff discovered some blood leukocytes, which could engulf disease causing bacteria is known as _____.
(a) Phagocytosis
(b) Plaque
(c) Phagocytos
(d) Humoral immunity

7. Clumping of antibody and a particular antigen
(a) Neutralization
(b) Opsonization
(c) Formation of immune complexes
(d) Agglutination
8. The strength of attraction between the antigen and antibody is known as _____.
(a) affinity (b) avidity
(c) firm (d) irreversible
9. Name the antibody which take part in hypersensitivity reaction of heavy fever, asthma and anaphylactic shock?
(a) Ig G (b) Ig M
(c) Ig D (d) Ig E
10. Major Histocompatibility Complex (MHC) is _____.
(a) The collection of genes that code for self vs non self recognition in vertebrates
(b) The collection of genes that code for cell surface proteins
(c) Binding of peptides fragments derived from pathogens
(d) All of the above

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2. Role of specific immune system in mammals
(a) Recognise foreign materials to the body
(b) Respond to foreign material in the body
(c) Remember antigens
(d) All the above
3. CD as molecule in immunology stands for _____.
(a) Cell surface diffraction
(b) Cell surface differentiation
(c) Clusters of differentiation
(d) Clusters of diffraction
4. Which cells are involved in B cell activation?
(a) Immunoglobulins (b) T cells
(c) Haptens (d) Memory cells
5. Complement system kills microbes in which way
(a) Opsonization (b) Cytolysis
(c) Inflammation (d) Only (a) and (c)
6. Immunoglobulin is also called _____.
(a) Antigen (b) Antibody
(c) Epitope (d) Haptens

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PART B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define immunity. Write about types of immunity.
Or
(b) Describe acquired immunity.
12. (a) Discuss about anatomy of Lympho reticular system.
Or
(b) Explain in briefly about cytokines.
13. (a) State the important properties of an antigen.
Or
(b) Describe functions of Immunoglobulin G.
14. (a) Explain briefly about precipitation reactions.
Or
(b) Report the importance of ELISA test.

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15. (a) Explain briefly about transplantation immunology.

Or

(b) Select the important properties of Anaphylaxis reactions.

PART C — (5 × 8 = 40 marks)

Answer ALL the questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss in detail about Blood transfusion.

Or

(b) Report the importance of blood group system in immunology.

17. (a) Describe in detail about primary lymphoid organs.

Or

(b) Explain in detail about humoral immune response.

18. (a) Write about antitoxins.

Or

(b) Define vaccine. State the types and importance of vaccines.

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19. (a) Illustrate in detail about Monoclonal antibodies.

Or

(b) Apply the importance of complement fixation technique in immunology.

20. (a) Discuss in detail about tumour immunology.

Or

(b) Tell in detail about Type IV hypersensitivity reactions.

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