

(6 Pages)

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M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Fourth Semester

Zoology – Core

IMMUNOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Immunity mediated by antibody is known as
 - (a) Humoral immunity
 - (b) Cell mediated immunity
 - (c) Artificial immunity
 - (d) None of the above
2. The proteins produced by variety of cells due to infection by virus is
 - (a) Interleukins
 - (b) Interferons
 - (c) Protegrins
 - (d) None

3. Direct immunofluorescence test may be used for the detection of
- (a) Rabies antigen
 - (b) Antibodies in syphilis
 - (c) Hepatitis B antigen
 - (d) Cryptococcal antigen
4. Which type is the cell mediated hypersensitivity reaction
- (a) Type I
 - (b) Type II
 - (c) Type III
 - (d) Type IV
5. Plasma cells and memory cells are differentiated from
- (a) B-cells
 - (b) T-cells
 - (c) Null cells
 - (d) None
6. Antibodies are the effectors of which system
- (a) Cell mediated system
 - (b) Memory system
 - (c) Humoral system
 - (d) Cytotoxic

7. Which parasitic organism causes elephantiasis in human
- (a) Virus (b) Bacteria
(c) Protozoa (d) Helminth
8. The autoimmune disease resulting in progressive weakening of skeletal muscle is
- (a) Myasthenia gravis
(b) Goodpasture's syndrome
(c) Hashimoto's thyroiditis
(d) Rheumatoid arthritis
9. Attenuated oral polio vaccine is
- (a) Salk vaccine (b) Sabin vaccine
(c) BCG vaccine (d) DPT vaccine
10. Which of the following cells may provide the first line of defence Against many tumours
- (a) Eosinophils
(b) Natural killer cells
(c) Monocytes
(d) Mast cells

PART B — ($5 \times 5 = 25$ marks)

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

Each answer should not exceed 250 words.

11. (a) Explain the mechanism of innate immune recognition.

Or

- (b) Give an account of primary lymphoid organs in Man.

12. (a) Explain the structure types of MHC.

Or

- (b) Discuss delayed hypersensitivity with examples.

13. (a) Explain the endocytic pathway of antigen presentation.

Or

- (b) Explain NK cell mediated cytotoxicity.

14. (a) Write notes on defective phagocytic functions in relation to Immunodeficiency.

Or

- (b) Explain immune response against bacterial infection.

15. (a) Write briefly graft versus host reaction.

Or

- (b) Explain immune response to tumour antigen.

PART C — ($5 \times 8 = 40$ marks)

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

Each answer should not exceed 600 words.

16. (a) Explain the first line and second line of defence in innate immunity.

Or

- (b) Give a detailed account of immune cells of T- Lymphocytes.

17. (a) Describe the structure functions of various classes of Immunoglobulin.

Or

- (b) What are the components of complement? Discuss the classical pathway of complement system.

18. (a) Explain in detail the B-cell activation and proliferation.

Or

- (b) Give an account of effector response of cell mediated immunity.

19. (a) Write an account of immune response against protozoan parasites.

Or

- (b) Give a detailed account of autoimmune diseases.

20. (a) What are vaccines? Give a detailed account of types of vaccine.

Or

- (b) Write a detailed account of immune therapy of cancer.
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