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Reg. No. :

Code No. : 5750

Sub. Code : ZMBM 22

(CBCS) DEGREE EXAMINATION, APRIL 2022

Second Semester

Microbiology — Core

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 :

Cell mediated immunity response are _____

- (a) enhanced by depletion of complement
- (b) suppressed by corticosteroids
- (c) enhanced by depletion of T cells
- (d) enhanced by depletion of macrophage

Which of the following does not participate in the formation of antigen – antibody complexes?

- (a) Hydrophobic bonds
- (b) Covalent bonds
- (c) Electrostatic interaction
- (d) Van der Waals forces

In order to separate the antibodies in an antibody mixture, the laboratory technologist may use a procedure called _____

- (a) transfusion
- (b) complement fixation
- (c) electrophoresis
- (d) gene amplification

Type I hypersensitivity is known as _____

- (a) anaphylaxis
- (b) agglutination
- (c) the transfusion reaction
- (d) contact hypersensitivity

The antibody IgE and mast cells are associated with _____

- (a) contact hypersensitivity
- (b) immunofluorescence test
- (c) electrophoresis
- (d) immediate hypersensitivity

2. What is the primary function of humoral immunity?

- (a) It primarily defends against fungi and protozoa
- (b) It is responsible for transplant tissue rejection
- (c) It protect the body against cells that become cancerous
- (d) It produces antibodies that circulate in body fluids

3. Each individual antigenic determinant of the variable region of the antibody is referred to as _____

- (a) Paratope
- (b) Epitope
- (c) Agreptope
- (d) Idiotope

4. The earliest stages of B-cell differentiation _____

- (a) occur in the embryonic thymus
- (b) require the presence of antigen
- (c) involve rearrangement of k-chain gene segments
- (d) involve rearrangement of heavy chain gene segments

Page 2

Code No. : 5750

9. Monoclonal antibodies differ from polyclonal antibodies in their property of reacting with _____

- (a) specific epitope
- (b) specific antigen
- (c) specific clone of cells
- (d) all the above

10. Live vaccine is _____

- (a) low dose of the infectious bacteria
- (b) a dose of bacterial stain in a modified form which retains immunogenicity but is not pathogenic
- (c) a low dose of toxin
- (d) a sample of cells from a patient who recently recovered from the disease

PART B — (5 × 5 = 25 marks)

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

11. (a) What is pathogenicity with some examples?

Or

(b) What are the stages of phagocytosis?

12. (a) What is antigen and write about its function?

Or

(b) Why is the major histocompatibility complex so important to immune function?

13. (a) Explain the significance of radioimmune assay.

Or

(b) Write notes on western blotting.

14. (a) What is immediate type hypersensitivity and give some examples?

Or

(b) What is autoimmunity? Give some examples.

15. (a) Describe about the current basic immunization schedule.

Or

(b) What is mission indradhanush related to?

PART C — (5 × 8 = 40 marks)

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

16. (a) Write a detail notes on primary lymphoid organs.

Or

(b) Discuss about cell mediated immunity.

17. (a) Write a notes on classical complement pathway.

Or

(b) Explain about human leucocyte antigen.

18. (a) Write an essay on immunoelectrophoresis.

Or

(b) Discuss about complement fixation test.

19. (a) Write about immuno deficiency diseases.

Or

(b) Explain about tumor immunology.

20. (a) Write about monoclonal antibody production.

Or

(b) Discuss in detail about corona vaccines.