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63/1 (SEM-5) DSE1 ZOOHE5016

2024

ZOOLOGY

Paper : ZOOHE5016

(Immunology)

Full Marks : 60

Pass Marks : 24

Time : 3 hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer: 1×5=5
- (a) B-cells are stimulated to produce antibody by
- (i) Killer T-cells
 - (ii) Suppressor T-cells
 - (iii) Plasma cells
 - (iv) Antigens
- (b) When body starts rejecting its own cells, it is called-
- (i) Autografting
 - (ii) Autoimmunity
 - (iii) Immune suppression
 - (iv) Immuno deficiency

(c) Which one of the following is not a viral disease?

- (i) Influenza (ii) Chalaria
(iii) AIDS (iv) Hepatitis B

(d) Immunity acquired after an infection is-

- (i) Passive Immunity
(ii) Active Immunity
(iii) Innate Immunity
(iv) Genetic Immunity

(e) How many types of antibodies are present in human body?

- (i) Five (ii) Three
(iii) Four (iv) Two

(f) Antibodies in our body are complex of

- (i) Lipoprotein (ii) Glycoprotein
(iii) Polysaccharides (iv) Struaid

(g) In AIDS, HIV Kill-

- (i) Antibody molecule
(ii) Bone marrow cells
(iii) T-cytotoxic cells
(iv) CD4 cells

(h) Humoral immunity is mediated by

- (i) Cytotoxic T-cells. (ii) Plasma cell
(iii) Eosinophil (iv) Neutrophil.

(i) Passive Immunity was discovered by

- (i) Edward Jenner
(ii) Emil Von Behring
(iii) Robert Koch
(iv) Louis Pasteur

(j) The cells that actually release the antibodies are:

- (i) Helper T-cells.
(ii) Cytotoxic T-cells.
(iii) Plasma cells.
(iv) Killer cells.

2. Answer the following (**any five**): 2×5=10

- (a) What are the functions of Helper T-cell?
(b) What is humoral immunity?
(c) How do the Killer T-cell work?
(d) Mention the characteristics of acquired immunity.
(e) Write the properties of cytokins.
(f) What do you mean by Immune dysfunctions?
(g) Write a note on Autoimmunity.

3. Answer the following questions(**any five**): 5×5=25

- (a) Explain the role of immunity in Protection from infections diseases.
(b) Mention the differences between active immunity and Passive immunity.

- (c) What is innate immunity? Discuss briefly the four lines of defence of our body.
- (d) What is Hypersensitivity? Write about the various types of Hypersensibilities.
- (e) Write a note on various types of vaccines.
- (f) What is Immunoassays? Write about ELISA test.
- (g) What is an antigen and an antibody? How do antigens and antibody interact?
- (h) What are the early theories of Immunology? Explain.
- (i) Write about Hybridoma technology.

4. Answer **any two** of the following questions: $10 \times 2 = 20$

(a) What are Immunoglobulins? Explain the structure and functions of different classes of Immunoglobulins with necessary diagram.

$2+4+4=10$

(b) Explain the structure and functions of MHC molecules.

$5+5=10$

(c) What is Complement system? Write about the components and Pathways of complement activation.

$2+4+4=10$

(d) Explain about the cells and organs involved in the immune system with suitable diagram.

$5+5$