2023-24

Time - 3 hours

Full Marks - 60

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.
Draw labelled diagrams wherever necessary.

GROUP - A

1. Fill in the blanks. (all) [1 × 8

(a) T-lymphocytes maturation occurs in _____.

(b) Tetanus is an example of _____ vaccine.

(c) Antibody binding site on antigen is called _____.

(d) _____ antibody is secreted during allergic reaction.

(e) _____ proteins differentiate between self and non-self antigen.

(f) Antigen that activates immune system is called _____.

(g) _____ is the first antibody secreted in response to a foreign antigen by immune system.

(h) T-lymphocytes are involved in _____ type of immunity.

GROUP - B

2. Answer any eight of the following within two or three sentences each. [1½ × 8

(a) What is cross-reactivity ?

(b) What are the characteristics of Adaptive immunity ?

(c) What is hapten ?

(d) What is Antigen Presenting cells ?

(e) Differentiate between Active and Passive immunity.

(f) How NK cells provide immunity ?

(g) How Antibody neutralises effect of Antigen ?

(h) What is IgA ?

(i) Define Autoimmune disease with example.

(j) What is the role of macrophage ?

GROUP - C

3. Answer any eight of the following within 75 words each. [2 × 8

(a) What are the characteristics of Immunogen ?

(b) What are T-lymphocytes ?

(c) What is Inflammation ?

(d) Differentiate between humoral and cell-mediated immunity.

(e) How AIDS affect immunity ?

(f) What are interferons ?

(g) Differentiate between attenuated and killed vaccine.

(h) Describe structure of Antibody.

(i) What are T-cell epitopes ?

(j) Describe Endogenous Antigen Presentation in cell.

GROUP - D

4. Answer any four of the following within 500 words each. [6 × 4

(a) What is Complement System ? Explain different components and pathways of complement activation.

(b) Give an account on cells and organs of immune system.

(c) What is immunoassay ? Explain its different types and roles in immunology.

(d) Explain structure, types and functions of MHC molecules.

(e) Explain production and maturation of T-cell lymphocytes.

(f) Give brief account on various types of Hypersensitive reactions.

(g) What is vaccine ? Describe function and types of vaccines with examples.