

Yashwantrao Chavan College of Science, Karad

B.Sc. Part III Zoology

Paper- XIV (Immunology)

Question Bank

Multiple choice questions

1. Which of the following immunity is present from our birth?
a) Innate Immunity b) Active immunity
c) Passive immunity d) Acquired immunity
2. The branch of biology involved in the study of immune systems in all organisms is called.....
a) Botany b) Microbiology
c) Immunology d) Biotechnology
3. Antigens can be -----
a) Proteins b) Carbohydrates c) Nucleic acids d) All of these
c) Erythrocyte formation d) Developing RBCs
4. Where does haematopoiesis take place?
a) Lungs b) Pancreas c) Liver d) Bone marrow
5. The hormone erythropoietin stimulates red blood cell production in the red bone marrow. Where in the body is erythropoietin produced?
a) Spleen b) Kidney c) Liver d) Bone marrow
6. Any molecule that induces or elicits an immune response is _____
a) Antigen b) Antibody c) Epitope d) Immunogen
7. Generally the shape of antibody is _____
a) T shape b) H shape
c) Y shape d) B shape
8. Name the cytokines which released in response to virus infection?
a) Interferons b) Monokines c) Lymphokines d) Interleukins

9. Megakaryocytes give rise to _____
a) Erythrocytes b) Agranulocytes
b) Granulocytes d) Thrombocytes
10. Which of the following immunoglobulin is the most abundant immunoglobulin in new-borns?
a) IgA b) IgM c) IgG d) IgD
11. The antibody which is found in secretions is _____
a) IgD b) IgE c) IgG d) IgA
12. Agglutination reaction is more sensitive than precipitation for the detection of _____
a) Antigens b) Antibodies
c) Complement d) Antigen-antibody complexes
13. Commercially available ELISA kits are used for the detection of _____.
a) Rotavirus b) Hepatitis B surface antigen
c) Anti-HIV antibodies d) All of these
14. Monoclonal antibody production requires _____.
a) Mouse splenic lymphocytes b) Mouse myeloma cells
c) Both a and b d) None of these
15. A virus vaccine that can activate cytotoxic T cells must contain
a) High dose of virus particles b) Live virus
b) Virus peptide d) None of these
16. Lymphocytes are activated by antigen in.....
a) Blood stream b) Bone marrow c) Liver d) Lymph nodes
17. A molecule that can be covalently linked to a non-immunogenic antigen to make it an Immunogen is called.....
a) Adjuvant b) Carrier c) Hapten d) Mitogen
18. Which of the following cells is involved in cell-mediated immunity?
a) T-cells b) B-cells
b) Mast cells d) Both T and B cells

19. Which of the following does not act as a protecting barrier for the body surface?
- a) Skin b) Mucus
 - b) Gastric acid d) Salivary amylase
20. Which of the following cells is involved in humoral immunity?
- a) T-cells b) B-cells
 - c) Mast cells d) Both T and B cells
21. Which of the following immunity is called the first line of defence?
- a) Innate Immunity b) Active immunity
 - c) Passive immunity d) Acquired immunity
22. Which of the following immunity is obtained during a lifetime?
- a) Acquired immunity b) Active immunity
 - c) Passive immunity d) None of the above.
23. Any substance or molecule that interacts with antibodies is called _____
- a) Antigen b) Antibody c) Epitope d) Immunogen
24. Majority of antigens are -----
- a) Proteins b) Carbohydrates c) Nucleic acids d) Lipids
25. Which of the following is NOT a secondary lymphoid organ
- a) Thymus b) Spleen c) Mesenteric lymph node d) Peyer's patch
26. In cellular immunity, T cells are responsible for the recognition and killing of foreign invaders. The cells are,
- a) Cytotoxic T lymphocytes b) Killer T cells
 - c) Both a & b d) None of these
27. Plasma cells produce thousands ofthat are released into the blood.
- a) Antigens b) Helper T cells c) Antibodies d) Virus fragments
28. Which of the following systems protects our body against disease-causing microbes?
- a. Immune system b) Digestive system
 - c. Excretory system d) Respiratory system

29. Which of the following systems protects our body against disease-causing microbes?
- a. Immune system
 - b) Digestive system
 - c. Excretory system
 - d) Respiratory system
30. Which of the following cells is involved in cell-mediated immunity?
- a) Leukaemia
 - b) T cells
 - c) Mast cells
 - d) Thrombocytes
31. Which of the following cells of the immune system do not perform phagocytosis?
- a) Macrophage
 - b) Neutrophil
 - c) Eosinophil
 - d) Basophil
32. Monocytes differentiate into which kind of phagocytic cells?
- a) Neutrophil
 - b) B cell
 - c) Macrophage
 - d) T cell
33. The ability of an organism to resist infections by the pathogens is called.....
- a) Infection
 - b) Hypersensitivity
 - c) Immunity
 - d) Allergy
34. Natural killer cells are found in all of the following except _____
- a) Lymph nodes
 - b) Thymus
 - c) Spleen
 - d) Blood
35. Which of the following is not involved in specific immunity?
- a) Neutrophil
 - b) T cell
 - c) Plasma cell
 - d) B cell
36. Which of the following cells is involved in cell-mediated immunity?
- a) Mast cells
 - b) B-cells
 - c) T-cells
 - d) Both T and B cells
37. Which of the following cells is involved in humoral immunity?
- a) T-cells
 - b) B-cells
 - c) Mast cells
 - d) Both T and B cells
38. B-cells and T-cells are two types of cells involved in _____.
- a) Innate Immunity
 - b) Active immunity
 - c) Passive immunity
 - d) Acquired immunity

39. Which of the following cells of the immune system do not perform phagocytosis?
 a) Macrophage b) Neutrophil c) Eosinophil d) Basophil
40. The spleen is largely involved with the response to antigens which are in the:
 a) Tissues b) Blood c) Gut d) Lungs
41. Lymphoid Organs are not responsible for _____
 a) Proliferation of lymphocytes b) Differentiation of lymphocytes
 c) Destruction of lymphocytes d) Maturation of lymphocytes
42. Which of the following organs is also called as “Graveyard of RBCs”?
 a) Spleen b) Heart c) Bone Marrow d) Liver
43. Which of the following organ is also called as “Throne of Immunity or training school of T-lymphocytes”?
 a) Bone Marrow b) Thymus c) Brain d) Heart
44. Which of the following is hapten _____
 a) Cyanide b) Penicillin c) Paracetamol d) None of these
45. B cells that produce and release large amounts of antibodies are called
 a) Memory cell b) Plasma cells c) Killer cells d) Neutrophils
46. Hapten cannot activate T cell or B cell due to
 a) Its low molecular weight b) Its inability to bind to MHC
 c) Both a & b d) None of these
47. The ability of the immune system to recognize self-antigens versus nonself antigen is an example of
 a) Humoral immunity b) Cellular immunity
 c) Specific immunity d) Tolerance
48. A living microbe with reduced virulence that is used for vaccination is considered
 a) Attenuated b) Dormant c) A toxoid d) Virulent

Long answer questions

1. What is hybridoma technology? Explain in detail role of monoclonal antibodies.
2. What are the principles of Immunity?
3. What are antigens? Describe the properties of antigens

4. What are epitopes? Describe 'B' cell epitopes with examples.
5. Give a brief account of the history of immunology
6. Comparison of active immunity and passive immunity
7. Give an account of cells of the Lymphoid lineage with suitable diagrams.
8. Explain in detail antigen-antibody interaction.
9. Explain different organs of immune system
10. Give brief account of history of immunology
11. Give an account of cells of the Myeloid lineage with suitable diagrams.
12. What are epitopes? Describe 'T' cell epitopes with examples.
13. Describe the process of Haematopoiesis.
14. Describe the structure of antibody.
15. What are antibodies? Explain in detail different classes of antibodies.

Short answer questions

1. Functions of Antibodies
2. Explain Monoclonal antibodies
3. Functions of monoclonal antibodies.
4. Phagocytosis
5. Primary lymphoid organs
6. B cell epitopes
7. T cell epitopes
8. Antibody structure
9. 14. Explain IgA
10. Natural killer (NK) cells
11. Types of Antigen-antibody reaction. Explain any one reaction.
12. Properties of antigen- antibody reaction
13. Properties of antigens
14. Difference between B & T cell epitopes
15. Monocytes
16. B-Lymphocytes
17. Types of epitopes

18. Haematopoiesis
19. Functions of B & T cell epitopes
20. Explain IgM
21. Prophylaxis
22. Interferons
23. Passive Immunity
24. Explain IgG
25. Granulocytes
26. T-Lymphocytes
27. ExplainIgD
28. ExplainIgE