

PAPER - III IMMUNOLOGY

SEMESTER – I, INTERNAL – 1

Multiple choice questions.

1. Innate immunity is characterized by:

A) Memory B) Specificity C) Rapid non-specific action D) Antibody production

Answer: C

2. Adaptive immunity includes:

A) Skin barrier B) B and T cells C) Lysozyme D) Fever

Answer: B

3. Humoral immunity is mediated by:

A) T cells B) NK cells C) Antibodies D) Macrophages

Answer: C

4. Cell-mediated immunity involves:

A) IgM B) IgG C) T lymphocytes D) B lymphocytes

Answer: C

5. Major antigen presenting cells include:

A) Macrophages B) Dendritic cells C) B cells D) All of the above

Answer: D

6. Macrophages originate from:

A) Monocytes B) Basophils C) Neutrophils D) NK cells

Answer: A

7. Primary lymphoid organ responsible for T cell maturation:

A) Spleen B) Thymus C) Liver D) Lymph nodes

Answer: B

8. Secondary lymphoid organ:

A) Bone marrow B) Thymus C) Spleen D) Yolk sac

Answer: C

9. B cell activation requires:

A) Antigen binding to BCR B) CD8 recognition C) Antibody binding D) Histamine release

Answer: A

10. The antigenic determinant part recognized by antibodies is:

A) Hapten B) Carrier C) Epitope D) Adjuvant

Answer: C

11. Haptens are immunogenic only when:

A) Free in plasma B) Bound to carrier protein C) Large molecules D) Combined with complement

Answer: B

12. Adjuvants function to:

A) Inhibit immune response B) Enhance immune response C) Destroy antigens D) Produce fever

Answer: B

13. IgM is:

A) Smallest B) First produced in primary response C) Found in tears D) Passed via placenta

Answer: B

14. IgG is known for:

A) Largest size B) Immediate production C) Crossing placenta D) Present only in saliva

Answer: C

15. Monoclonal antibodies are produced by:

A) Hybridoma technology B) Dendritic cells C) Macrophages D) ELISA

Answer: A

16. ELISA detects:

A) DNA only B) RNA only C) Antigen-antibody interactions D) Lipids

Answer: C

17. RIA uses:

A) Enzymes B) Fluorochromes C) Radioactive isotopes D) Lipids

Answer: C

18. Complement classical pathway is activated by:

A) Antigen antibody complex B) Mannose binding lectin C) Properdin D) Lipopolysaccharide

Answer: A

19. MHC-I presents antigens to:

A) B cells B) CD4+ T cells C) CD8+ T cells D) NK cells

Answer: C

20. MHC-II is expressed on:

A) All nucleated cells B) NK cells C) Professional APCs D) RBCs

Answer: C

Fill in the Blanks

1. The first line of defense in immunity is _____. Answer: innate immunity

2. Antibodies are produced by _____ cells. Answer: plasma

3. The largest immunoglobulin is _____. Answer: IgM

4. The most abundant immunoglobulin in serum is _____. Answer: IgG

5. T-cells mature in the _____. Answer: thymus

6. B-cells mature in the _____. Answer: bone marrow

7. The antigen binding region of an antibody is called _____. Answer: paratope

8. The region of antigen recognized by antibody is the _____. Answer: epitope

9. Haptens require a _____ to become immunogenic. Answer: carrier protein

10. Macrophages arise from blood _____. Answer: monocytes

11. Complement protein C3 is split into C3a and _____. Answer: C3b

12. The classical complement pathway requires _____. Answer: antibody

13. The MHC molecules are encoded by genes on chromosome _____. Answer: 6

14. The antibody involved in allergic reactions is _____. Answer: IgE
15. The cell responsible for antibody secretion is _____. Answer: plasma cell
16. In ELISA, the label used is usually an _____. Answer: enzyme
17. RIA uses _____ isotopes. Answer: radioactive
18. MHC-I binds _____ peptides. Answer: endogenous
19. MHC-II binds _____ peptides. Answer: exogenous
20. The major phagocytic cell found in tissues is the _____. Answer: macrophage

ANSWER THE FOLLOWING

1 – B-CELL ACTIVATION ?

2-CELLS INVOLVED IN IMMUNE SYSTEM ?

3-INNATE IMMUNITY ?

4 – IMMUNOGLOBULINS STRUCTURE ?

5-HYBRIDOMA TECHNOLOGY ?