

Fundamental Immunology Knowledge

Immunology · Practice Test · 18 Questions

1. Which type of white blood cell is primarily responsible for producing antibodies?

- A) T-cells
- B) B-cells
- C) Neutrophils
- D) Macrophages

2. What is the primary function of an antigen in the immune system?

- A) To destroy pathogens
- B) To trigger an immune response
- C) To provide energy for cells
- D) To coat the surface of skin

3. Which organ is responsible for the maturation of T-lymphocytes?

- A) Spleen
- B) Liver
- C) Thymus
- D) Bone marrow

4. What is the most abundant type of antibody found in the blood?

- A) IgG
- B) IgA
- C) IgM
- D) IgE

5. Which cells are often referred to as 'phagocytes' because they ingest and digest pathogens?

- A) Plasma cells
- B) Basophils
- C) Macrophages
- D) Red blood cells

6. What is the name of the process by which immune cells move toward a chemical signal at an injury site?

- A) Chemotaxis
- B) Mitosis
- C) Osmosis
- D) Phagocytosis

7. Which substance is released by mast cells during an allergic reaction?

- A) Insulin
- B) Histamine
- C) Adrenaline
- D) Cortisol

8. Which part of the immune system provides a non-specific, immediate defense against pathogens?

- A) Adaptive immune system
- B) Innate immune system
- C) Humoral response
- D) Cell-mediated immunity

9. What are the primary proteins that signal other cells to initiate an immune response, often associated with inflammation?

- A) Cytokines
- B) Hemoglobin
- C) Keratin
- D) Collagen

10. Which type of immunity is acquired after an individual recovers from an infection?

- A) Passive immunity
- B) Innate immunity
- C) Natural active immunity
- D) Artificial immunity

11. Which antibody class is typically associated with allergic responses and parasitic infections?

- A) IgG
- B) IgM
- C) IgE
- D) IgD

12. What is the main role of the spleen in the immune system?

- A) Producing insulin
- B) Filtering blood and removing old red blood cells
- C) Producing digestive enzymes
- D) Storing calcium

13. Which molecule is responsible for presenting antigens to T-cells to initiate an immune response?

- A) MHC complex
- B) Hemoglobin
- C) Albumin
- D) Glucose

14. What is the effect of a vaccine on the immune system?

- A) To provide immediate antibiotics
- B) To create memory cells for future exposure
- C) To physically block pathogens
- D) To destroy the liver

15. Which cells are responsible for the 'memory' aspect of the adaptive immune system?

- A) Memory B and T cells
- B) Platelets
- C) Erythrocytes
- D) Mast cells

16. Where are all immune system cells originally produced?

- A) Bone marrow
- B) Brain
- C) Heart
- D) Lungs

17. What is the definition of a pathogen?

- A) A type of vitamin
- B) A microorganism that can cause disease
- C) A chemical used for cleaning
- D) A blood type

18. Which type of immune response involves the production of antibodies by B-cells?

- A) Humoral immunity
- B) Cell-mediated immunity
- C) Innate immunity
- D) Physical barrier immunity