

Fundamental Immunology Knowledge

Immunology · Answer Key · 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