

The Science of the Immune System

Immunology · Answer Key · 8 Questions

1. What specialized type of white blood cell matures in the thymus gland located behind the breastbone?

- A) T cells**
- B) B cells
- C) Red blood cells
- D) Platelets

2. Which process describes how immune cells, such as macrophages, engulf and digest cellular debris and pathogens?

- A) Osmosis
- B) Phagocytosis**
- C) Photosynthesis
- D) Mitosis

3. What are the Y-shaped proteins produced by B cells that specifically bind to foreign invaders called?

- A) Hormones
- B) Enzymes
- C) Antibodies**
- D) Antigens

4. What is the main function of memory B cells after an infection has been cleared?

- A) They carry oxygen throughout the body
- B) They remember the pathogen to respond quickly if it returns**
- C) They produce digestive enzymes in the stomach
- D) They rebuild damaged bone tissue

5. Which part of the body serves as the primary physical barrier in the innate immune system?

- A) Spleen
- B) Skin**
- C) Lymph nodes
- D) Bone marrow

6. What term is used for any foreign molecule or surface marker that triggers an immune response?

- A) Antigen**
- B) Antibody
- C) Antibiotic
- D) Histamine

7. Where inside the human body are all white blood cells originally created?

- A) Heart
- B) Liver
- C) Bone marrow**
- D) Kidneys

8. Which small, bean-shaped organs filter lymphatic fluid to trap pathogens and activate immune cells?

- A) Alveoli
- B) Nephrons
- C) Lymph nodes**
- D) Synapses