

# Immunology Foundations in South Asia

Immunology · Answer Key · 12 Questions

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**1. Which specialized white blood cell in the human body is primarily responsible for producing antibodies to fight infections?**

- A) Red blood cell
- B) B-lymphocyte**
- C) Platelet
- D) Osteoblast

**2. The BCG vaccine, widely administered in India and Pakistan at birth, is designed to protect children primarily against which disease?**

- A) Tuberculosis**
- B) Malaria
- C) Dengue fever
- D) Cholera

**3. What is the primary function of an antigen when it enters the human bloodstream?**

- A) To strengthen the immune system
- B) To trigger an immune response**
- C) To provide nutrients to cells
- D) To repair damaged tissue

**4. Which organ in the human body acts as a filter for the blood and is a major site for the immune system to respond to blood-borne pathogens?**

- A) Liver
- B) Spleen**
- C) Pancreas
- D) Gallbladder

**5. In the context of the South Asian climate, the 'cold chain' is critical for maintaining the potency of vaccines. What does the cold chain refer to?**

- A) The metal links on a syringe
- B) The process of keeping vaccines at specific low temperatures**
- C) The freezing of blood samples
- D) The transport of ice in monsoon season

**6. Which type of immunity is acquired by an infant through the mother's placenta or breast milk?**

A) Artificial active immunity

**B) Passive immunity**

C) Cell-mediated immunity

D) Herd immunity

**7. What is the main role of 'memory cells' in the human immune system?**

A) To digest dead bacteria

**B) To recognize and respond faster to previously encountered pathogens**

C) To produce red blood cells

D) To regulate body temperature

**8. Which specific substance does the body produce in response to an invading pathogen to neutralize it?**

**A) Antibody**

B) Hormone

C) Enzyme

D) Glucose

**9. The 'Pulse Polio' campaign in India is an example of a public health initiative designed to achieve what type of community-wide protection?**

A) Individual immunity

**B) Herd immunity**

C) Natural immunity

D) Genetic immunity

**10. Which part of the immune system consists of a network of vessels that transports lymph throughout the body?**

A) Circulatory system

B) Digestive system

**C) Lymphatic system**

D) Endocrine system

**11. Which white blood cell is often the first to arrive at the site of an infection to engulf bacteria via phagocytosis?**

**A) Neutrophil**

B) Erythrocyte

C) Platelet

D) Keratinocyte

**12. What occurs in the body during an allergic reaction?**

A) The body ignores the substance

**B) The immune system overreacts to a harmless substance**

C) The blood stops clotting

D) The body produces too much oxygen