

## **Question Bank of Theory Immunology**

### **Q1/ Fill in the blanks with suitable words.**

1. The mechanical barrier consists of -----, -----, -----  
whereas chemical barrier consists of -----, -----, -----.
2. The valence of an antibody refers to the -----that an  
individual antibody molecule can bind. The valence of IgA is -----.
3. -----cells are involved in the extracellular killing of the target.
4. -----involved in the killing of large parasites (helminths).
5. ----- secreted by virus-infected cells inhibits viral replication.
6. -----such as C-reactive protein (CRP), defensins, mannan-binding lectin,  
Apolipoprotein B, serum amyloid protein, C9, factor B, and fibrinogen.
7. The main functions of Immunity are-----, -----  
-----.
8. ----- It is a component of the innate arm to recognize  
what is foreign by detecting certain carbohydrates or lipids on the surface of  
microorganisms that are different from those in human cells.
9. A dendritic cell is displayed in three types -----, -----  
-----.
10. Five signs of inflammation-----, -----, -----,  
-----.

### **Q2/ Explain by the figure (Answer only one).**

- A- A typical immune response to invading microbes?
- B- Phagocytosis phases.

### **Q3/Only enumerate the following (Answer only two).**

- A- Basic properties of antigens.
- B- Count all types of Immunoglobulins.
- C- Cells of Adaptive Immunity.

**Q4/What is the difference between inter-chain disulfide and intra-chain disulfide bonds of antibodies?**

**Q5/Define: 1-Antibody Valence      2-Epitope   Explain by example.**

**Q6/Write classes of Antibodies based on differences in amino acid sequences in the constant region of the heavy chain.**

The immunoglobulins can be divided into five different classes, based on differences in the amino acid sequences in the constant region of the heavy chains.

1. IgG –Gamma heavy chains
2. IgM –Mu heavy chains
3. IgA -Alpha heavy chains
4. IgD –Delta heavy chains
5. IgE –Epsilon heavy chains

**Q7/Write basic proprieties of Antigen.**

**Q8/ Write three main differences between innate immunity and adaptive immunity.**

**Q9/ How the immune system discriminates between self and non-self-antigen?**

**Q10/ Write the differences between innate immunity and adaptive immunity.**

**Q11/ Explain by the figure (Answer only one).**

A-A typical immune response to invading microbes?

B- phagocytosis phases.

**Q12/ Only enumerate the following (Answer only two).**

A-Basic properties of antigens.

B-Count all functions of Immunoglobulins.

C- Cells of Adaptive Immunity.

**Q13/ Explain by the figure (Answer only one).**

B- A typical immune response to invading microbes?

C- Phagocytosis phases.

**Q14/Only enumerate the following (Answer only two).**

- D- Basic properties of antigens.
- E- Count all types of Immunoglobulins.
- F- Cells of Adaptive Immunity.

**Q15/ Define (Five) of the following words:**

1. Combined Immunization
2. Secondary immune response
3. Premunition immunity
4. Hyperimmune sera
5. Local Immunity
6. Defensins

**Q16/ Mention the specific role of passive immunity.**

**Q17/What happens when a TLR binds to a microbe?**

**Q18/ Enumerate Properties of Acquired Immunity**

**Q19/ Write the differences between the followings:**

1. Killed and live vaccine
2. Immunological memory of the infection and vaccination
3. Convalescent sera and Pooled human  $\gamma$  globulin

**Q20/ Define (Five) of the following words:**

1. Herd Immunity
2. Opsonization
3. Fever
4. Defensins
5. Premunition immunity
6. Hyperimmune sera

**Q21/ Write differences between active and passive immunity.**

**Q22/ Enumerate the followings:**

1. General characterized of Passive Immunity.
2. Bridges between Innate and Acquired Immunity
3. Pattern-recognition receptor (PRR) with their function

**Q23/ What is phagocytosis? Which cells are named phagocytes? Draw and mention all phagocytosis steps.**

**Q24/ Fill in the following blanks:**

1. Innate immunity refers to ----- defense mechanisms that come into play -----  
----- of an antigen (non-self) appearance in the body.
2. ----- refers to antigens entering the body through vaccination with the response of providing -  
----- protection.
3. Artificially passive acquired immunity Antibodies from immune individuals injected into the  
body are referred to as -----, -----and -----  
-----.
4. ----- is the ability of the pathogen to enter the host, multiply and stimulate an ----  
-----.
5. Functions of Immunity are -----, -----, and Immune surveillance.
6. Lactoperoxidase in milk- has ----- action.
7. Interferon is cytokines that trigger ----- and-----to interfere with RNA viral  
reproduction.
8. -----non-phagocyte large granular lymphocytes, Attack cells that lack "self" cell-surface  
receptors.
9. Higher body temperature occurs as a result of certain cytokines called -----.
10. Example of natural active immunity as -----, while artificial active immunity as -----  
-----.
11. The released chemical mediators include vasoactive amines such as -----, and lipid products  
as -----.

**Q25/ Enumerate the chemical barrier of the body.**

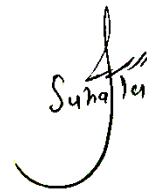
**Q26/Write the difference between the followings:**

1. Active and Passive Naturally Acquired Immunity
2. Killed Vaccines and Live Vaccines.

**Q27/How does our body defend against invading pathogens? mention external and internal  
defenses.**

**Q28/** Define these words (only **SIX**).

1. NK cells
2. Phagocytosis
3. Chemotaxis
4. Pattern-recognition receptor
5. Mediators
6. Pyrogens
7. Defensins
8. Interferon

A handwritten signature in black ink, appearing to read 'Suhayla', with a large, stylized flourish extending from the bottom.

**Lecturer**

**Suhayla Hamad Shareef**