Q1/ What is inflammation? What are the main signs of inflammation? What is the vital role of inflammation?

Q2/ Count physical barriers of the innate immune response.

Q3/ How your immune system responds to pathogen inter body. (Explain by a diagram).

Q4/ Features of effective vaccine?

Q5/ Normal flora suppresses the growth of pathogenic bacteria and fungi by:

Q6/ Chemical barriers of infection are:

**Write about secondary (peripheral) lymphoid organs**

**What are the differences between the plasma cells and memory cells**

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

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

------------------------,-----------------------------.

**Q1/ Explain by the figure (Answer only one).**

1. A typical immune response to invading microbes?

B- Phagocytosis phases.

Q2/ **only enumerate the following (Answer only two).**

1. Basic properties of antigens.
2. Count all functions of Immunoglobulins.
3. Cells of Adaptive Immunity.

I**f the microorganisms penetrated the body, three or four defensive operation comes into play:**-

Normal flora suppresses the growth of pathogenic bacteria and fungi by :-

**Q1/ Inhibition of phagocytosis are through:**

**Q2/ Components of innate immunity include:**

**1/**

**2/**

**3/**

**4/**

**5/**

**Q3/ Answer the followings:**

1. **Humoral factors of immune components are:**

**A.**

**B.**

**C.**

**while cellular components are:**

**A.**

**B.**

**Q4/ Properties of acquired immunity are:**

**1.**

**2.**

**3.**

**Q5/ What are the differences between traditional vaccine and genetic vaccine?**

|  |  |
| --- | --- |
| **traditional vaccine** | **genetic vaccine** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Q6: What are the functions of mucus?**

**1.**

**2.**

**3.**