

## Introduction to immunology

1. Naturally acquired active immunity would be most likely acquired through which of the following processes?
  - a. vaccination
  - b. drinking colostrum
  - c. natural birth
  - d. infection with disease causing organism followed by recovery.
2. Which of the following convey the longest lasting immunity to an infectious agent?
  - a. Naturally acquired passive immunity
  - b. Artificially acquired passive immunity
  - c. Naturally acquired active immunity
  - d. All of these
  - e. None of these
3. Which of the following substances will not stimulate an immune response unless they are bound to a larger molecule?
  - a. Antigen
  - b. Virus
  - c. Hapten
  - d. Miligen
  - e. Antibody
4. B and T cells are produced by stem cells that are formed in:
  - a. Bone marrow
  - b. The liver
  - c. The circulatory system
  - d. The spleen
  - e. The lymph nodes
5. B cells mature in the..... while T cells mature in the
  - a. Thymus/bone marrow and gut associated lymphoid tissue (GALT)
  - b. Spleen/bone marrow and GALT
  - c. Bone marrow and GALT/Thymus
  - d. Liver/Kidneys
6. Which of the following immune cells/molecules are most effective at destroying intracellular pathogens?
  - a. T helper cells
  - b. B cells
  - c. Antibodies
  - d. Complement
  - e. T cytolytic cells
7. A living microbe with reduced virulence that is used for vaccination is considered:
  - a. A toxoid
  - b. Dormant
  - c. Virulent
  - d. Attenuated
  - e. Denatured
8. B cells that produce and release large amounts of antibody are called:
  - a. Memory cells
  - b. Basophils
  - c. Plasma cells
  - d. Killer cells
  - e. Neutrophils
9. The specificity of an antibody is due to
  - a. its valence
  - b. The heavy chains

- c. The Fc portion of the molecule
  - d. The variable portion of the heavy and light chain
10. In agglutination reactions, the antigen is a.....  
in precipitation reactions, the antigen is a.....
- a. whole cell/soluble molecule
  - b. Soluble molecule/whole cell
  - c. Bacterium/virus
  - d. Protein/carbohydrates
  - e. Protein/Antibody
11. B Cells are activated by
- a. Complement
  - b. Antibody
  - c. Interferon
  - d. Memory cells
  - e. Antigen
12. Fusion between a plasma cell and a tumor cell creates a
- a. Myeloma
  - b. Natural killer cell
  - c. Lymphoblast
  - d. Lymphoma
  - e. Hybridoma
13. **Monoclonal antibodies** recognize a single:
- a. Antigen
  - b. Bacterium
  - c. Epitope
  - d. B cell
  - e. Virus
14. Cell mediated immunity is carried out by..... while humoral immunity is mainly carried out by.....
- a. B cells/T cells
  - b. Epitopes/Antigens
  - c. T cells/B cells
  - d. Antibodies/Antigens
  - e. Antibodies/Phagocytes
15. The ability of the immune system to recognize self antigens versus nonself antigen is an example of:
- a. Specific immunity
  - b. Tolerance
  - c. Cell mediated immunity
  - d. Antigenic immunity
  - e. Humoral immunity