1. Which of the following offers a non-specific (innate) defense against viral infection?
   A. Antibodies.  
   B. Cytokines.  
   C. Interferon.  
   D. Histamine.

2. Which of the following cell types directly aids the activation of T-cells by antigens?
   A. Macrophages  
   B. Neutrophils  
   C. Mast cells  
   D. Natural killer cells

3. Active immunity may be produced by
   A. natural exposure to a pathogen.  
   B. receiving a vaccine.  
   C. receiving gamma globulin injections  
   D. Both A & B.  
   E. Both B & C.

4. Passive immunity may be produced by
   A. natural exposure to a pathogen.  
   B. receiving a vaccine.  
   C. receiving gamma globulin injections  
   D. Both A & B.  
   E. Both B & C.

5. Which of the following are immune cells specific to the liver?
   A. Peyer’s patches  
   B. Helper T-cells  
   C. Plasma B-cells  
   D. Microglia  
   E. Kupffer cells  
   F. Natural killer cells

6. Which of the following is directly involved in specific or adaptive immunity?
   A. Mucus  
   B. Macrophages  
   C. Neutrophils  
   D. lymphocytes  
   E. Interferons  
   F. Histamine

7. Which of the following is not a secondary lymphoid organ?
   A. Liver  
   B. Tonsils  
   C. Thymus  
   D. Appendix  
   E. Lymph nodes  
   F. Spleen

8. All of the following are part of external innate immunity except
   A. stomach acid.  
   B. interferons.  
   C. alveolar macrophages.  
   D. epithelial membranes.  
   E. acidic urinary tracts.
9. Which of the following is part of innate immunity, and directly receives information about a pathogen’s antigen from an antigen-presenting cell?
   A. Neutrophil  
   B. Monocyte  
   C. Macrophage  
   D. Helper T-cell  
   E. Cytotoxic T-cell  
   F. Natural killer T-cell  
   G. Regulatory T-cell  
   H. B-cell

10. Which of the following are capable of phagocytizing a pathogen, like bacteria?
    A. Neutrophil  
    B. Monocyte  
    C. Macrophage  
    D. Plasma B-cell  
    E. Mast cells  
    F. A & B only  
    G. A, B, & C only  
    H. D & E only

11. Which of the following secretes histamine and cytokines to cause vasodilation as part of a local inflammatory response?
    A. Neutrophil  
    B. Monocyte  
    C. Macrophage  
    D. Plasma B-cell  
    E. Mast cells  
    F. A & B only  
    G. A, B, & C only  
    H. D & E only

12. T-cells are capable of undergoing change to become specific against a particular pathogen.
    A. TRUE  
    B. FALSE

13. The function of antibodies receptors on B-cells is to
    A. bind to specific antigens on pathogens.  
    B. cause antigen-bearing cells to agglutinate.  
    C. tag pathogens for identification and destruction by phagocytic cells.  
    D. A & B only.  
    E. A, B, & C.

14. Medical doctors and epidemiology experts say that, for a given population, vaccinations rates must be _______ to provide effective “herd immunity”.
    A. 100%  
    B. 90%  
    C. 95%  
    D. 85%  
    E. 75%  
    F. 15%

15. Which of the following cells are part of adaptive immunity, and function to recognize and directly kill infected, abnormal, or cancerous cells?
    A. Neutrophil  
    B. Monocyte  
    C. Macrophage  
    D. Helper T-cell  
    E. Cytotoxic T-cell  
    F. Natural killer T-cell  
    G. Regulatory T-cell  
    H. B-cell
Ch 1. Answers:
1. C
2. E
3. D
4. C
5. E
6. D
7. C
8. B
9. D
10. G
11. E
12. A
13. E
14. C
15. E

How did you do?