1. Identify the sterile (microbe-free) anatomical site from the list below.

A) vagina
B) urethra
C) rectum
D) bladder
E) Kidney
F) D and E

2. Effects of bacterial exposure may lead to disease in the host. Place the following occurrences in the proper sequence or order.

A) disease, infection, contact
B) contact, disease, infection
C) contact, infection, disease
D) infection, contact, disease

3. Microbial antagonism means that

A) good microbes are replaced by invading pathogenic microbes.
B) good microbes establish themselves in the host and prevent invasion by pathogenic microbes.
C) the host is predisposed to disease due to the microbes they harbor.
D) pathogenic bacterial growth is encouraged by the presence of established host organisms.

Microbial antagonism means that

4. Endogenous infections are caused by

A) normal biota in an unusual site.
B) infection by indigenous biota in a healthy individual.
C) parasitic flora that have been ingested into the gut.
D) viral invasion

5. A virulence factor is one which

A) allows a microbe to invade and establish itself on the host.
B) allows a host to evade infection.
C) normal flora use against invading microorganisms.
D) invading organisms use against normal flora.
6. Objective evidence of disease as noted by an observer is called

   A) a sign.
   B) a symptom.
   C) a syndrome.
   D) prodromal.

7. Identify which is a symptom from the list of signs below.

   A) fever
   B) leukopenia
   C) nausea
   D) dropping blood pressure

8. After initial infection, some infectious agents go into a dormancy, or ________, but may re-emerge to produce a recurrent disease state.

   A) reservoir state
   B) latency
   C) symptomatic state
   D) sequelae

9 ______ are individuals who inconspicuously shelter a pathogen and spread it to others.

   A) Vectors
   B) Sources
   C) Opportunists
   D) Carriers

10. A fomite is ________ that can transmit disease.

    A) a vector
    B) an animal
    C) an inanimate object
    D) a cough or sneeze droplet

11. An infection which is indigenous to animals but can be transmitted to humans is a ________ infection.

    A) passive
    B) fomite
    C) zoonotic
    D) communicable
12. Nosocomial infections are acquired in a hospital from surgical procedures, equipment, personnel, and often involve drug resistant microorganisms.

A) True
B) False

13. ______ are molecules that stimulate a response by T and B cells.
   a. Antibodies
   b. Antigens
   c. Interferons
   d. Platelets

14. An immunoglobulin is made up of four polypeptide chains, two heavy and two light chains. The hypervariable region which binds the antigen lies
   A. the FAb
   B. in the FC
   C. on the heavy chains
   D. on the light chains

15. The portion of a molecule which elicits an immune response is called
   A) a mosaic.
   B) a hapten.
   C) an epitope.
   D) an alloantigen.

16. Antigen presenting cells include
   A) macrophages, B cells, dendritic cells
   B) T cells, B cells, mast cells
   C) memory cells, macrophages, TC cells
   D) plasma cells, mast cells, immunoglobin cells

17. The only immunoglobin that is secreted outside of tissues (found in tears, saliva, mucus, and colostrums), secretory IgA is a dimer held together by a J chain.

A) IgA
B) IgM
C) IgD
D) IgE

18. ______ are the result of B cell activation and secrete specific antibody. They are large, specialized, and the most numerous of B cell progeny.
   A) TH cells
   B) B cells
   C) Plasma cells
   D) Mast cells
19 ______ is the capacity of certain T cells to kill a specific target cell.
A) Cytotoxicity
B) Apoptosis
C) Vaccination
D) Necrosis

20 Cell mediated immunity" refers to
A) B cell activation and plasma cell production.
B) monocyte conversion.
C) T cell responses to antigen.
D) MHC markers on "self" cell surfaces.

21 Protection from infection obtained through medical procedures is called
A) active immunity.
B) passive immunity.
C) natural immunity.
D) artificial immunity.

22 The majority of white blood cells in circulation include
A) neutrophils and lymphocytes.
B) eosinophils and basophils.
C) macrophages.
D) erythrocytes.

23. Monocytes leave the marrow via the bloodstream. As they enter tissues, they mature and become
A) granulocytes.
B) lymphocytes.
C) macrophages.
D) neutrophils.