BIO 116 – Anatomy & Physiology II
Practice Assignment 3 - The Lymphatic, Immune and Digestive Systems

This is not a required assignment

1. Which are components of the lymphatic system?
   a: Thyroid gland
   b: Spleen
   c: Red bone marrow
   d: Thymus gland
   e: Lymph nodes
   f: Tonsils
   A. a, b, c, d, e, f
   B. a, b, c, e, f
   C. b, c, e
   D. b, c, d, e, f
   E. b, c, d, e

2. Lymph is transported through a network of increasingly larger lymphatic passageways. What is the correct order of these, from smallest diameter to largest diameter?
   A. Capillaries - ducts - trunks - vessels
   B. Ducts - capillaries - vessels - trunks
   C. Vessels - capillaries - trunks - ducts
   D. Ducts - vessels - capillaries - trunks
   E. Capillaries - vessels - trunks - ducts

3. Lymph vessels are similar to cardiovascular
   A. arteries.
   B. veins.
   C. capillaries.

4. Which is not drained by the right lymphatic duct?
   A. Right side of abdomen
   B. Right side of thorax
   C. Right side of head and neck
   D. Right shoulder
   E. Right arm
5. The thoracic duct and the right lymphatic duct empty lymph into the
   A. Superior vena cava
   B. Subclavian veins
   C. Inferior vena cava
   D. Azygous vein
   E. Brachiocephalic veins

6. What type of immune cell reaches maturity in the thymus?
   A. B lymphocytes
   B. neutrophils
   C. monocytes
   D. T lymphocytes

7. Which of the following are found in lymph nodes?
   A. B lymphocytes
   B. Macrophages
   C. T lymphocytes
   D. Dendritic cells
   E. All of the choices are correct.

8. Which of the following is a defense mechanism of the innate immune system?
   A. intact skin
   B. mucous membranes
   C. normal flora (normal microbiota)
   D. ciliated cells
   E. All of the above

9. Which of the following is NOT a chemical barrier that helps prevent entry of microbes into the body tissues?
   A. lysozyme
   B. salt on the skin
   C. sebum
   D. stomach acid
   E. All of the choices above are chemical barriers.
10. Which of the following is a result of increased capillary permeability at the site of inflammation?
A. Increased interstitial fluid resulting in swelling
B. Increased pressure from fluids resulting in pain
C. Increased blood flow through capillaries resulting in redness
D. Diapedesis of neutrophils resulting in phagocytosis
E. All of the above choices are correct.

11. Complement
A. is a series of blood plasma proteins.
B. attracts phagocytes.
C. causes bacteria cells to burst.
D. All of the choices are correct.

12. Which of the following is a form of nonspecific defense?
A. antibody-mediated immunity
B. cell-mediated immunity
C. phagocytosis by a macrophage
D. All of the above choices are correct.

13. Portions of bacteria, viruses, molds, parasites, and cancer cells that cause specific responses from the immune system are called
A. antibodies.
B. antigens.

14. Which of the following produce antibodies?
A. T lymphocytes
B. Dendritic cells
C. B lymphocytes
D. All of the above.

15. B cells are responsible for
A. cell-mediated immunity.
B. inflammation.
C. antibody-mediated immunity.
D. nonspecific immunity.
16. Under the influence of cytokines from helper T cells, B cells enlarge and divide, forming
A. plasma cells.
B. memory cells.
C. cytotoxic cells.
D. plasma cells and memory cells.

17. Which of the following is NOT an action of antibodies with the antigen?
A. neutralize bacterial toxins by coating them
B. make a cluster of antigen-antibody complexes
C. make the antigen more susceptible to phagocytosis
D. All of the choices are actions.

18. T cells
A. are activated by an antigen-presenting cell.
B. may stimulate B cells.
C. release cytokines.
D. All of the choices are correct.

19. A mother who had the measles as a child, has a baby. At the age of 1 month, the baby is exposed to measles but does not get sick. What kind of immunity does the baby have?
A. natural active
B. artificial active
C. natural passive
D. artificial passive

20. Memory B cells can produce a faster and more intense response to a subsequent exposure to the antigen.
True  False

21. Which of the following is NOT a salivary gland?
A. submaxillary
B. parotid
C. sublingual
D. submandibular
22. Which of the following is NOT a component of saliva?
A. the enzyme salivary amylase
B. mucus
C. hydrochloric acid
D. water

23. The external surface of the crown of a tooth is covered with the
A. dentin.
B. gengiva.
C. enamel.
D. periodontal ligament.

24. Which of the following is the correct order for the tissues of the digestive tract from external to internal?
A. muscularis, mucosa, submucosa, serosa
B. serosa, muscularis, submucosa, mucosa
C. mucosa, submucosa, muscularis, serosa
D. submucosa, mucosa, muscularis, serosa

25. What prevents acid from backing up into the esophagus from the stomach?
A. pyloric sphincter
B. lower esophageal sphincter
C. rugae
D. gastric pits

26. Which of the following hormones decreases the release of gastric juices?
A. secretin
B. Intrinsic factor
C. cholecystokinin
D. secretin and cholecystokinin

27. Which of the following is NOT a region of the stomach?
A. fundic region
B. cardiac region
C. hepatic region
D. pyloric region
28. Which is the first portion of the small intestine?
A. duodenum
B. ileum
C. jejunum
D. cecum

29. Lacteals
A. are located in villi.
B. are part of the lymphatic system.
C. absorb fat molecules.
D. All of the choices are correct.

30. Which of the following is NOT part of the large intestine?
A. ileum
B. cecum
C. rectum
D. colon

31. Bacteria in the large intestine
A. break down some undigested food.
B. produce vitamins.
C. produce gas.
D. All of the choices are correct.

32. Bile pigments are
A. yellow substances synthesized in the gallbladder.
B. formed from the breakdown of hemoglobin in the liver.
C. synthesized in the pancreas.
D. used to breakdown proteins.

33. Bile leaves the gallbladder by way of the
A. common hepatic duct.
B. cystic duct.
C. hepatic portal vein.
D. common bile duct.
34. What enzymes will break starch (carbohydrates) down to disaccharides?
A. amylases  
B. peptidases  
C. lipases  
D. All of the choices are correct.

35. Where does protein digestion occur?
A. mouth and stomach  
B. stomach and small intestine  
C. stomach and pancreas  
D. mouth and small intestine

36. Which organs of the digestive tract lack digestive enzymes?
A. mouth and esophagus  
B. mouth and pancreas  
C. esophagus and large intestine