Review Sheet

1. List the five types of blood vessels in order from the heart and back to the heart.
2. List and describe the three layers or tunics of the arteries.
3. Define vasoconstriction and vasodilation.
4. State how arteries are divided into groups.
5. List, describe and state the function of the three groups of arteries.
6. What are the smallest blood vessels and describe their composition.
7. List and describe the two types of capillaries based on structure.
8. Define capillary bed and list and describe the two types of vessels found in the beds.
9. State the function of capillaries and state the mechanisms of exchange.
10. Describe the exchange of oxygen and carbon dioxide in the capillaries.
11. Define hydrostatic pressure and osmotic pressure and their effects on fluids leaving and entering the capillaries.
12. Describe the composition of veins.
13. State what enhances the return of blood to the heart through veins.
14. Define anastomoses and collateral channels and state their importance.
15. Define blood flow and blood pressure.
16. List and define the factors affecting blood pressure.
17. List and describe the three factors that cause peripheral resistance.
18. List the three control mechanisms for regulating blood pressure.
19. List and describe the five types of neural control.
20. State the effects of epinephrine, norepinephrine, and antidiuretic hormone (ADH), on blood pressure.
21. Describe the direct and indirect renal controls of blood pressure.
22. Define autoregulation and state the principal stimulus in body tissue.
23. List the components of the lymphatic system and its functions.
24. List the lymphatic vessels and state the direction lymph flows.
25. State where lymphatic capillaries are found and describe the composition of their cell walls.
26. State how lymphatic collecting vessels are similar to veins.
27. Where are the lymphatic trunks located, how are they named and what is their function?
28. List the two lymphatic ducts, what they drain, and what they empty into.
29. Where are the lymph nodes located and list the three major regions where they are found.
30. List and describe the two distinct regions of the lymph nodes and state their functions.
31. Describe how lymph is circulated.
32. List, describe and state the functions of the two types of tissue found in the spleen.
33. Describe the composition of the thymus gland and state its function.
34. List and state the location of the four pairs of tonsils.
35. Describe the composition of the tonsils and state their functions.
36. List the mucosa-associated lymphatic tissues (MALT) and state their functions.
37. Define resistance and susceptibility.
38. What are the two types of defenses against disease?
39. Define nonspecific and specific body defenses.
40. Define immunity.
41. Name the nonspecific body defense mechanisms.
42. What is the body’s first line of defense?
43. Give examples of surface membrane barriers.
44. Name the nonspecific cellular and chemical defenses.
45. Define phagosome, phagolysosome, and opsonization.
46. What are the null cells and what are their functions?
47. What is the body’s second line of defense?
48. What are the four cardinal signs of inflammation?
49. What causes redness, heat, swelling, and pain during inflammation?
50. Define pavementing or margination?
51. What cells follow the neutrophils to the site of inflammation and what is their function?
52. What is complement and what are their effects?
53. What is interferon, where is it produced and what is its effect?
54. What are pyrogens and what is their effect?
55. What are the specific body defenses?
56. What is the body’s third line of defense?
57. Define immunocompetence.
58. What types of cells do the majority of lymphoid stem cells produce?
59. Where do T and B cells become immunocompetent?
60. When are fully functional T and B cells formed?
61. What cells form macrophages and where are they formed?
62. What cells act as antigen-presenters?
63. What are antigens and what reactions do they cause in the body?
64. What are the two characteristics of a complete antigen?
65. Define immunogenicity and reactivity.
66. Define antigenic determinants.
67. What effect does the number of antigenic determinants have on an antigen?
68. What cells are associated with humoral immune responses?
69. What do most of the clone cells differentiate into in the humoral immune response?
70. What is the function of plasma cells?
71. Differentiate between primary and secondary immune response.
72. What are antibodies?
73. What is the structure of an antibody and what is the function of the variable and constant regions?
74. What are the five classes of antibodies, where are they found and what are their functions?
75. Define the two major defense mechanisms that form antigen-antibody complexes.
76. What cells are involved in cell-mediated immune responses?
77. Where are the two classes of major histocompatibility complex proteins and what are their functions?
78. What produces interleukin 1 and interleukin 2 and what are their functions?
79. What are some of the lymphokines produced by cytotoxic T cells and what are their functions?
80. What are the functions of cytotoxic, helper, suppressor, and memory T cells?