Acc Biology Unit 4 Study Guide

1. What is the difference between sexual and asexual reproduction?
2. How are eukaryotic chromosomes different than prokaryotic chromosomes?
3. Eukaryotic cells spend most of their time in which part of cell cycle?
4. When does the nuclear membrane reform and nucleoli reappear during mitosis?
5. What is necessary for a plant or animal to grow and develop normally?
6. What is the difference between a benign and malignant tumor?
7. What are the many functions of mitosis in organisms?
8. What is the relationship between a virus and its host?
9. What is the structure of a DNA nucleotide?
10. How are arteries different than veins?
11. What are the characteristics of the mammalian circulatory system?
12. How does blood flow from the heart to lungs to body and back?
13. Which blood vessel transports oxygenated blood from the lung to the heart?
14. What is the largest blood vessel in the human body?
15. Which are the main fluids that transport HIV?
16. What is the body’s first line of defense against infection?
17. What kinds of cells wander the interstitial fluid eating pathogens and virus infected cells they run into and recognize?
18. What is the major function of natural killer cells?
19. Why would an organism make interferon?
20. What mobilizes the nonspecific defense system?
21. When you have a cut in your skin the damaged cells release which chemical alarm?
22. Why do diseases involving widespread infection usually result in a fever?
23. What are the 2 main functions of the lymphatic system?
24. What are antibodies composed of?
25. When antibodies are transferred from breast milk this is an example of??
26. How does DNA replicate?
27. Which cell types are responsible for humoral immunity?
28. What is the compliment to 5’ GAGCATA 3’?
29. Which types of cells are responsible for cell-mediated immunity?
30. What is central dogma of protein synthesis?
31. HIV damages which type of cells?
32. In a sentence “the dog did not eat” create a variation that would create a base substitution mutation.
33. Any change in a nucleotide sequence of DNA is called….
34. What are the characteristics of eukaryotic RNA?
35. Which enzyme is responsible for building RNA polymers?
36. Why doesn’t a base substitution always result in a different protein?
37. What is the general name of a substance that can elicit (cause) an immune response?
38. What happens in a primary immune response?
39. What is the basic function of a Tcell? Where do they do their job?
40. What is the name of the signal molecule secreted by an APC to activate a helper T cell?
41. What does a cytotoxic T cell secrete to destroy a target cell?
42. Which cell can destroy cancerous cells?
43. What are examples of autoimmune diseases?
44. What is anaphylactic shock? What causes it?
45. Which types of cells does HIV prefer to infect?
46. Describe how HIV (human immunodeficiency virus) is transmitted between humans. How are the cells of the immune system affected by HIV? Why is HIV particularly deadly compared to the cold virus?
47. Tuberculosis (TB) is caused by a bacterium. A test for TB involves injecting TB antigens under the skin and waiting a few days for a reaction. Explain how the TB test works to expose an active TB infection. Why might the TB test not be helpful for detecting TB in an AIDS patient?