Vista Murrieta High School
Anatomy & Physiology
Mr. Diaz and Mr. Nicholas

SEMESTER 1 FINAL EXAM STUDY GUIDE

Anatomy and Physiology: Introduction Essential Questions

1. Why are humans interested in studying the human body?
2. What is Anatomy?
3. What is Physiology?
4. What are the characteristics of life?
5. What environmental factors are needed for life?
6. Why is homeostasis important for survival?
7. What is a homeostatic mechanism?
   - Describe two homeostatic mechanisms.
8. What are the levels of organization in a complex organism?
9. What are the two major portions of the human body?
10. What are the major body cavities of the human body?
11. What does visceral mean?
    - What does parietal mean?
12. Describe the 4 membranes associated with the thoracic and abdominopelvic cavities.
13. Describe the 11 major organ systems along with their general functions and the organs involved.
14. List and describe 10 anatomical relative positions
15. What are the major anatomical planes and sections?
16. What are the 9 regions of the abdomen?
17. What are the major anterior and posterior body regions?

Histology Essential Questions

18. What are the 4 major types of tissue?
19. What are the general characteristics of epithelial tissue?
20. How are epithelial tissues classified?
21. Give the structure, function, and location of simple squamous epithelium.
22. Give the structure, function, and location of simple cuboidal epithelium.
23. Give the structure, function, and location of simple columnar epithelium.
24. Give the structure, function, and location of pseudostratified columnar epithelium.
25. Give the structure, function, and location of stratified squamous epithelium.
26. Give the structure, function, and location of stratified cuboidal epithelium.
27. Give the structure, function, and location of stratified columnar epithelium.
28. Give the structure, function, and location of transitional epithelium.
29. Give the structure, function, and location of glandular epithelium.
30. What is the difference between exocrine glands and endocrine glands?
31. Describe the 3 types of exocrine glands.
32. Distinguish between a serous cell and a mucous cell.
33. What are the general characteristics of connective tissues?
34. What are the 3 major connective tissue cell types?
35. What are the 3 types of connective tissue fibers produced by fibroblasts?
36. What are the two categories of connective tissue?

37. What are the three types of connective tissue proper?
38. Describe the general characteristics of loose connective tissue.
39. Describe the general characteristics of Adipose Tissue.
40. Describe the general characteristics of Dense Connective Tissue.
41. Describe the general characteristics of cartilage.
42. What are the three types of cartilage?
43. What are the general characteristics of bone?
44. What are the general characteristics of blood?
45. What are the three types of muscle tissue?
46. What are the general characteristics of skeletal muscle tissue?
47. What are the general characteristics of smooth muscle?
48. What are the general characteristics of cardiac muscle?
49. What are the general characteristics of nervous tissue?

Skeletal System Essential Questions

50. How many bones are in the body?
51. Define the following locations of bone and muscle.
52. What is the largest bone in the body? What is the smallest?
53. Compare the diaphysis with the epiphysis.
54. How many bones are in the human skull?
55. Name the four divisions of the skull.
56. What are fontanels? Why are they important?
57. Name the four parts to a vertebra.
58. What is Spina Bifida?
59. What are the atlas and the axis?
60. Name the three types of vertebrae & their number.
61. What causes a ruptured intervertebral disk?
62. Distinguish between true ribs and false ribs.
63. What are the three parts of the sternum?
64. Name five differences between a male & a female pelvis
65. What is the difference between the foramen magnum, vertebral foramen, & pelvic foramen?
66. What are the three parts of the coxa?
67. Why is the proximal region of the humerus called the surgical neck?
68. What's the advantage of having 2 bones in the forearm and lower leg?
69. What bone is the strongest in the body?
70. What causes the cracking of knuckles?
71. Why does an embryo's skeleton begin as cartilage and change to bone once it becomes a fetus?
72. The numerous channels that carry blood vessels in the center of the bone are called?
73. How does cartilage change into bone?
74. What characteristics does cartilage have?
75. Name 5 places in your body where cartilage is found.
76. At what age does the average male & female stop growing?
77. What is periosteum?
78. Where are growth plates located and what are they made of?
79. What are the two types of marrow?
80. List the 3 types of blood cells and their function.
81. Compare osteoclasts with osteoblasts.
82. Where is spongy bone located?
83. Compare a simple fracture with a compound fracture.

84. Compare supination with pronation.
85. Give an example of a ball and socket joint
86. Give an example of a hinge joint
87. Give an example of a sliding joint