

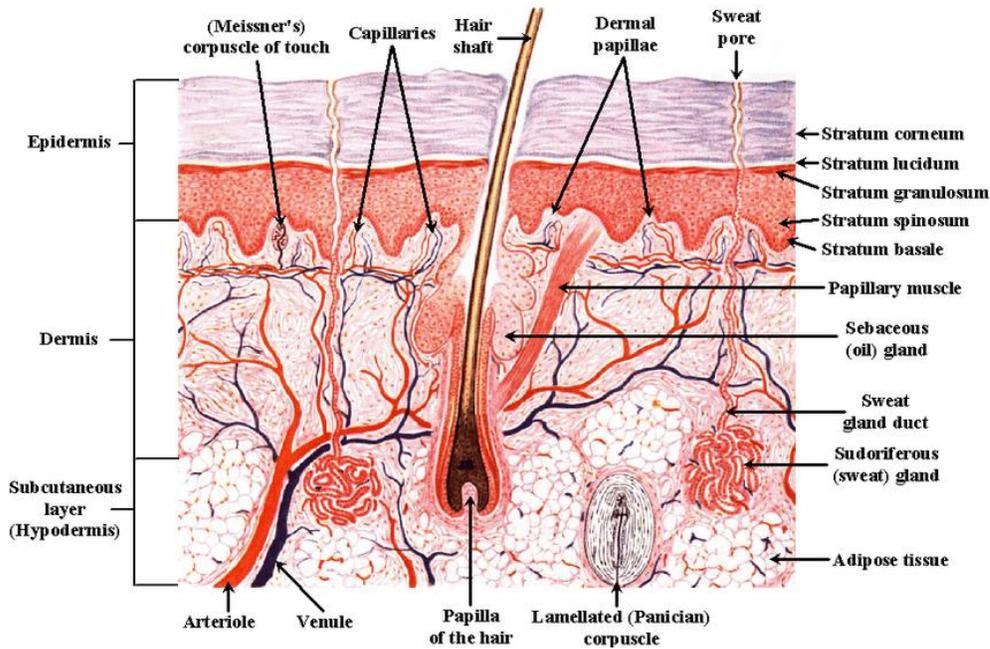
Anatomy Practice Test - Integumentary and Cardiovascular Systems

Answer Key Written by Susan Su

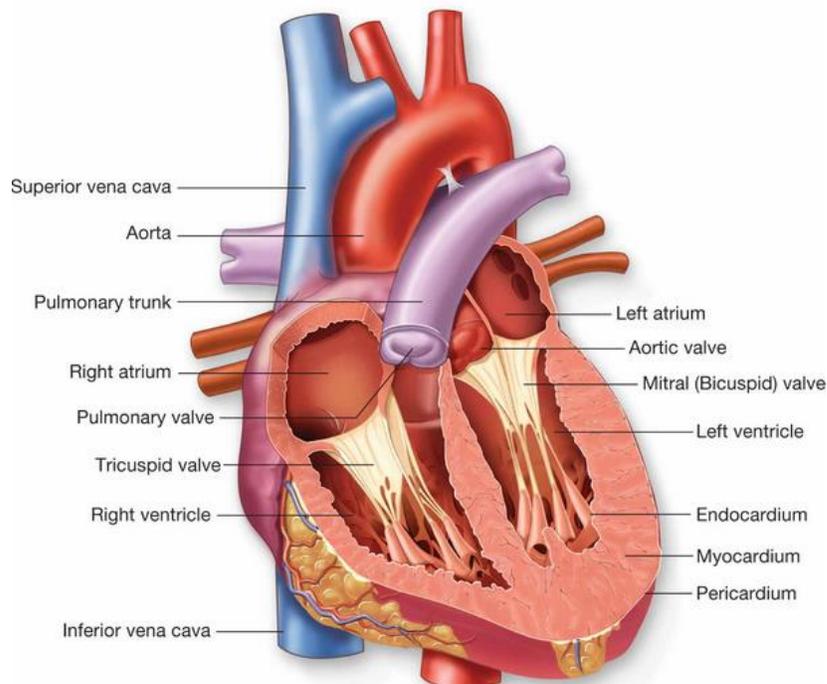
___/162 points

Part 1 – Labeling (1 pts. x 37 = 37 pts.)

1. Label the parts of the skin:



2. Label the diagram of the heart:



Part 2 – Multiple Choice (2 pts. x 18 = 36 pts.)

3. Which of the following is *not* a layer of the epidermis?
 - c. Stratum intermedium
4. The epidermis is mainly composed of which type of tissue?
 - b. Stratified squamous epithelial tissue
5. The dermis is mainly composed of which type of tissue?
 - c. Dense irregular connective tissue
6. Which of the following is the smallest blood vessel?
 - d. Capillary
7. The “watery” part of the blood is known as?
 - b. Plasma
8. What are the symptoms of a cardiac arrest?
 - d. All of the above
9. The muscular tissue of the heart is called the?
 - b. Myocardium
10. Which of the following is the transitional phase of hair growth?
 - b. Catagen
11. Which of the following detects heavy pressure?
 - d. Paccinian corpuscles
12. Which of the following is not a plasma protein?
 - a. Dystrophin
13. What are the two major branches of the left coronary artery?
 - b. Anterior descending artery & circumflex artery
14. Which of the following is not a layer of the artery?
 - d. Tunica fibrosa
15. What is the main function of red blood cells?
 - c. Delivering oxygenated blood from the lungs to the rest of the body

16. What benefit do collagen fibers provide?
 - b. Structural toughness and strength
17. Which of the following is a characteristic of thick skin?
 - d. All of the above
18. What type of hair shafts produces wavy hair?
 - a. Oval shaped
19. The buildup of bilirubin in blood, which gives the skin and eyes a yellow tone, is known as?
 - d. Jaundice
20. In a blood pressure of 117/76 mm Hg, what is the “76” known as?
 - b. Diastolic

Part 3 – Fill in the blanks (2 pts. x 20 = 40 pts.)

21. The main pacemaker of the heart is known as the sinoatrial node.
22. Hair and nails are composed mainly of the fibrous protein keratin.
23. The two pigments that influence skin color are melanin and carotene.
24. The two distinct circulation paths of the cardiovascular system are the pulmonary circulation path and the systematic circulation path.
25. Langerhans cells arise from red bone marrow, are easily damaged by UV light, and participate in immune responses.
26. The conversion of epidermal cells to keratinized material is called cornification, or keratinization.
27. The tissue bordering the root or sides of a nail is known as the perionychium.
28. The structure consisting of hair, hair follicle, and sebaceous gland is known as the pilosebaceous unit.
29. Deformity or disease of the nails is called onychosis.
30. Fibroblasts are cells that make structural fibers, and the main substance of connective tissue.
31. The pressure exerted by the blood on the walls of blood vessels is blood pressure.
32. The valve that lies between the left ventricle and aorta is called the aortic valve.
33. The narrowing of blood vessels due to the contraction of its muscular walls is called vasoconstriction.
34. Elevated level of cholesterol that increases the risk of coronary heart disease is called high cholesterol.

35. Milliliters of blood pumped per beat is known as stroke volume.
36. Cardiac output is calculated by multiplying heart rate by stroke volume.
37. The record of spread of electric activity throughout the heart is called a(n) electrocardiogram.
38. The process in which red blood cells are formed is called erythropoiesis.
39. Sweat glands that are not connected to hair follicles are eccrine sweat glands.
40. The basement membrane between the granular layer and the internal capsule of a hair follicle is known as the glassy membrane.

Part 4 – Short answer/essay (4 pts. x 10 = 40 pts.)

41. What are the five main types of psoriasis?

The five main types of psoriasis include plaque, guttate, inverse, pustular, and erythrodermic.

42. What function does the synovial membrane have?

The synovial membrane forms the inner lining of joint cavities, and secretes a fluid called synovial fluid, which lubricates and reduces friction between the joint and bones.

43. What is the difference between primary skin lesions and secondary skin lesions?

Primary skin lesions are present at birth or acquired over one's lifetime. Secondary skin lesions are the result of primary skin lesions being irritated or manipulated.

44. Name three differences between eccrine sweat glands and apocrine sweat glands.

Eccrine sweat glands secrete directly onto skin, while apocrine sweat glands secrete sweat into hair follicle. Eccrine sweat glands function at birth, while apocrine sweat glands develop during puberty. Sweat secreted from apocrine glands is slightly more viscous than eccrine secretions.

45. Describe the causes, symptoms, and treatments of malignant melanoma.

Caused by the overgrowth of melanocytes, usually due to overexposure to UV light; symptoms include change/development of a mole and the spread of pigment on skin; treatments include surgery, chemotherapy, radiotherapy, biological therapy, and targeted therapy.

46. What are possible causes of arteriosclerosis?

Possible causes of arteriosclerosis include smoking, high blood cholesterol, hypertension, and buildup of plaque inside the arteries.

47. What is the mean arterial pressure of someone with a blood pressure of 120/90?

100 mmHg

48. A healthy adult male weighing 70kg has an end diastolic volume (EDV) of about 120mL, and an end systolic volume (ESV) of about 50mL. What is his stroke volume?

70 mL

49. The same adult male from the previous question has a heart rate of approximately 70 beats per minute. Using the information given in questions 48 and 49, calculate his cardiac output. Give your answer in measurements of liters per minute.

4.9 L/min

50. What are the main human blood group systems?

The main human blood group systems include ABO, Rh, and MN blood groups.

Part 5 – Identifying (3 pts. x 3 = 9 pts.)

51. Basal Cell Carcinoma

52. Arteriosclerosis

53. Psoriasis (Bonus Points: Guttate psoriasis)

Photo Sources:

Skin Diagram - <http://www.acurnica.com/healthcare-professionals/biology-of-acurnicia/>

Heart Diagram - <http://biology-forums.com/index.php?action=gallery;sa=view;id=8518>

Basal Cell Carcinoma - <http://www.docstoc.com/docs/69835226/BASAL-CELL-CARCINOMA-eczema>

Arteriosclerosis - <http://www.wilsondisease.org/arteriosclerosis-prevention/>

Psoriasis - http://en.wikipedia.org/wiki/Guttate_psoriasis