Anatomy and Physiology II
Exam #2 Review

1. Mix and match
2. Explain the relative percentages of plasma, erythrocytes, leucocytes, and thrombocytes in the blood in a healthy person:

Plasma – _____

Erythrocytes – _____

Luekocytes – _____

Thrombocytes – _____

3A. What is hematocrit and how is it measured? What does a low hematocrit indicate? What are the common causes of anemia?

Hematocrit – _____

_____

How is it measured – _____

_____

Common causes of anemia –

1. _____
2. _____
3. _____
4. _____
5. _____

3B. What does a low reticulocyte count indicate?

_____

_____

4. About what percentage of the leucocytes are, neutrophils, lymphocytes, monocytes, eosinophils, and basophils in a healthy person.

Neutrophils – _____

Lymphocytes – _____

Monocytes – _____

Eosinophils – _____

Basophils – _____

5-1 How would you tell the difference between an erythrocyte, lymphocyte and a neutrophil cell: _____

_____

_____

5-2 How would you tell the difference between an basophil, monocyte and a thrombocyte: _____

_____

_____

6. What are the functions of erythrocytes, neutrophils, lymphocytes, monocytes, eosinophils, basophils, and thrombocytes.

Erythrocytes – _____

Neutrophils – _____

_____

Lymphocytes – _____

_____

Monocytes – _____

_____

Eosinophils – _____

_____

_____

Basophils – _____

_____

_____

Thrombocytes – _____

_____

7-1. If a person has A+ blood, what types can they receive? _____

7-2. If a person has B- blood, what types can they receive? _____

7-3. What types can receive B- blood? _____

7-4. What types can receive A+ blood? _____

8. What problem can occur if a Rh- mother has a RH+ baby. What is rhogam and how does it prevent the above problem?

9. About what percent of the plasma proteins are albumins, globulins, and fibrinogen.

Albumins –

Alpha & Beta Globulins –

Fibronogen –

10A. What functions do albumins, alpha and beta globulins, and gamma globulins have?

Albumins –

Alpha & Beta Globulins –

Gamma Globulins –

10B. What do VLDL, LDL, and HDL do? How is your total cholesterol calculated? What is high total cholesterol? What percentage of your total cholesterol should you HDL be? How can you increase your HDL?

VLDL does –

LDL does –

HDL does – _____

_____

What is high cholesterol? _____

What percentage should be HDL? _____

How can you increase your HDL? _____

11A. Explain what happens in the stages of hemostasis?

1. _____

_____

2. _____

_____

3. _____

_____

a. _____

_____

b. _____

_____

c. _____

_____

11B. What is the function of fibrinogen and explain in detail how it is activated to form fibrin.

Function:

_____

_____

_____

Activation:

a. _____

_____

_____

b. _____

c.

11C. How does fibrinolysis occur?

12. What effects do heparin and histamine have?

13A. Describe the layers of the pericardium and the heart. What are functions of the different layers.

1.

2.

3. _____

13B. What are the layers of the heart wall and what are the functions of the different layers?

1. _____

2. _____

3. _____

14. Which arteries carry blood to the heart?

1. _____
2. _____
3. _____
4. _____

15A-1. Give the name, composition and function of the layers of arteries:

1. _____

2. _____

3. _____

4. _____

5. _____

15A-2. What layers are in veins:

15A-3. Which contract more and why, arteries or veins?

15A-4. How are capillaries different then arteries? What layers do they have?

15A-5. How are large arteries different then medium sized arteries?

15A-6. Identify the order that blood travels through the vessels?

15C. Explain how blood vessels, skeletal muscle, and movements of the diaphragm help move blood through the vessels.

Arteries –

Skeletal muscle

Respiratory pump –

15D. How do sympathetic nerves affect vasoconstriction?

16. Diagram how blood moves through the heart to the lungs and the body. Name and show the location of heart valves on your diagram. Name the major vessels that enter and leave the heart.

17. Explain the order in which the chambers in the heart contract.

18-1. Explain how and why heart valves close?

18-2. What do the papillary muscles do?

_____

_____

18-3. Why aren't there any heart valves where the blood enters the atria?

_____

_____

19-1. Explain the difference between systolic blood pressure and diastolic blood pressure.

_____

_____

19-2. What causes a heart murmur?

_____

_____

19-3. What causes the heart sounds?

_____

_____

20A. Give the process of how the heart controls it's contractions. Identify the components, what they do, how electricity flows, etc.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

20B. How do sympathetic nerves affect the heart rate?

_____

_____

20B-2 How do parasympathetic nerves affect the heart rate?

_____

_____

20B-3 What do Beta-blockers do and which system do they affect?

_____

_____

21-1. How does extracellular concentrations of K^+ affect heart contractions?

_____

_____

21-2. How does extracellular concentrations of Ca^{++} affect heart contractions?

_____

_____

22-1. Draw an image of the heart electrical signals for a normal heart beat.

22-2. If someone has an abnormally deep Q wave, what problem is that likely to indicate? _____

22-3. If someone's Q wave is below the baseline and has a low T wave, what problem does that likely indicate? _____

22-4. If the QRS is spread wide, what problem does that likely indicate?

_____