

BIOL 2404 A&P Basics

Final Exam

Dr. Weis

Email answers ONLY in a MSWord document to the instructor

Make sure your name is on any pages submitted

Exam is worth 100 points. Each question is worth one point, unless otherwise specified

Point values for these questions are listed as [____points]

Chapter 1 = 6 points

1.1 Define homeostasis

1.2 Name a body plane and two related directional terms

1.3 Name the two major body cavities and two organs located in each region

1.4 Name the levels of body organization from smallest to largest

1.5 Define anatomy and physiology

1.6 Define negative feedback and give an example

Chapter 2 = 6 points

2.1 Define matter and energy

2.2 Define atom by using its subatomic parts

2.3 Name a chemical bond and how it is formed

2.4 Define acid and base

2.5 Name two properties of water

2.6 Give the function of the following organic molecules [0.25 points each, 1 point total]

a) Carbohydrates

b) Proteins

c) Fats

d) Nucleic acid

Chapter 3 = 8 points

- 3.1 Name the two major parts of the cell and give their function
 - 3.2 Name a membranous and nonmembranous organelle and their function
 - 3.3 Name and define a passive cell membrane transport
 - 3.4 Name and define an active cell membrane transport
 - 3.5 Explain the importance of the cell cycle
 - 3.6 Name the four major tissue types and their general function and give a specific example of each. [3 points]
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Chapter 4 = 5 points

- 4.1 Define tissue (epithelial) membrane and give an example
 - 4.2 Name two function of the Integumentary system
 - 4.3 Give the structure and function of the skin
 - 4.4 Name an appendage of the skin and its function
 - 4.5 Give the structure and function of the hypodermis
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Chapter 5 = 7 points

- 5.1 Name two functions of the skeletal system
- 5.2 Name a bone cell and its function
- 5.3 Define ossification and give an example
- 5.4 Name a bone in the following regions : [2 points]
 - a) Skull
 - b) Vertebrae
 - c) Boney thorax
 - d) Girdle
 - e) Upper appendages
 - f) Lower appendages
- 5.5 Give the structure and function of an intervertebral disc

5.6 Define joint and give an example

Chapter 6 = 7 points

6.1 Name two functions of muscle

6.2 Define sarcomere

6.3 Give the structure of a neuromuscular junction

6.4 Define muscle twitch

6.5 Define flex and extend

6.6 Name four muscles of the body and their actions at a joint,, [2 points]

Chapter 7 = 8 points

7.1 Define threshold

7.2 Name and describe a type of neuron and give its function

7.3 Name and give the function of a neuroglial cell

7.4 Define reflex arc using the components

7.5 Name the two divisions of the autonomic nervous system and their body effects

7.6 Name the two regions of the brain and their function

7.7 Define spinal nerve and give the total number of spinal nerves

7.8 Name two cranial nerves and give their function

Chapter 8 = 5 points

8.1 Name an accessory organ for the eye and its function

8.2 Name the two photoreceptors for the eye and their specific function

8.3 Name two receptors for the ear and their function

8.4 Define adaptation

8.5 Name the two chemical senses and their function

Chapter 9= 4 points

9.1 Define hormone

9.2 Name three endocrine glands, their hormones, and the hormone's action. [3 points]

Chapter 10 = 4 points

10.1 Give the function of the components of blood : [2 points]

- a) Red blood cells
- b) White blood cells
- c) Platelets
- d) Plasma

10.2 Define hemostasis

10.3 Define agglutination as it relates to the human blood groups

Chapter 11 = 7 points

11.1 Name a cardiac valve, its location, and function

11.2 Describe the histology of cardiac muscle

11.3 Name a component of the cardiac conduction system and its function

11.4 Define cardiac output using the mathematical formula

11.5 Name two arteries and two veins

11.6 Give the structure and function of a capillary

11.7 Define vascular anastomosis

Chapter 12 = 6 points

12.1 Give a location and function of a lymph node

12.2 Name a first and a second line of nonspecific body defenses

12.3 Name two cardinal signs of inflammation

12.4 Name the lymphocyte and its type of defense for the humoral mediated third line immunity

12.5 Name the lymphocyte and its type of defense for the cell mediated third line immunity

12.6 Define immunity

Chapter 13 = 6 points

13.1 Define respiration [0.5 points]

13.2 Give the function of the following areas : [3 points]

- a) Nasal cavity
- b) Pharynx
- c) Trachea
- d) Larynx
- e) Alveoli
- f) Bronchi and bronchioles

13.3 Name a respiratory volume and capacity

13.4 Define pulmonary ventilation [0.5 points]

13.5 Name a way CO₂ and O₂ are transported in the blood

Chapter 14 = 10 points

14.1 Define digestion and absorption

14.2 Define nutrition and metabolism

14.3 Define enzyme

14.4 Give the function for the following areas : [3 points]

- a) Mouth
- b) Esophagus
- c) Stomach
- d) Small Intestines
- e) Large Intestines
- f) Salivary gland

14.5 Give two functions of the pancreas

14.6 Give two functions for the liver

14.7 Define temperature and BMR

14.8 Name a vitamin and a mineral

Chapter 15 = 6 points

15.1 Name the functional unit of the kidney and give the two major parts

15.2 Define filtration

15.3 Define reabsorption

15.4 Define secretion

15.5 Name four normal characteristics of urine

15.6 Name two hormones that affect and/or are secreted by the kidneys

Chapter 16 = 5 points

16.1 Name the primary sex organ of the male and female

16.2 Name a hormone that affects the male and a different hormone that affects the female

16.3 Define oogenesis and gametogenesis

16.4 Define fertilization and where it occurs

16.5 Define labor by listing the three stages

Extra Credit : {0.5 points each, total 5 points}

EC Pick 10 of the 11 body systems and list a different problem for each