Package Title: Test Bank
Course Title: Derrickson 3e
Chapter Number: 1

Question Type: Multiple Choice

1) All of the following statements are true according to cell theory EXCEPT

a) a cell is the basic unit of life
b) organisms are made of at least one cell
c) cells are formed from other cells
d) organs are made of a single type of cell

Answer: d

Difficulty: Easy
Bloom's: Comprehension
Learning Objective 1: LO 1.1 Define physiology, identifying several of its subdisciplines.
Section Reference: 1.1 Physiology Defined

2) A skeleton has been found that appears to be human in origin. What features would you expect it to have?

a) small skull and use of two limbs for movement
b) use of four limbs for movement and erect posture
c) erect posture and large skull
d) small skull and four limbs for movement

Answer: c

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.1 Define physiology, identifying several of its subdisciplines.
Section Reference: 1.1 Physiology Defined

3) Which would be an example of physiology?

a) identification of a new bone
b) documenting the physical area where a heart is damaged
c) tracing the blood vessels used from an organ to the heart
d) explaining how a neuron conducts a signal

Answer: d

Difficulty: Medium
Bloom's: Application

Learning Objective 1: LO 1.1 Define physiology, identifying several of its subdisciplines.
Section Reference: 1.1 Physiology Defined

Question type: Text Entry

4) Someone who studies the kidneys would be a/an _____ physiologist.

Answer: renal

Difficulty: Easy
Bloom's: Knowledge
Learning Objective 1: LO 1.1 Define physiology, identifying several of its subdisciplines.
Section Reference: 1.1 Physiology Defined

Question type: Multiple choice

5) Which is an incorrect pairing of a structure-function relationship?

a) a thick layer of cells in an organ allowing exchange
b) a wide tube in an area where lots of flow is needed
c) strong bones in an area that bears more weight
d) elastic tissue in areas that stretch frequently

Answer: a

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.1 Define physiology, identifying several of its subdisciplines.
Section Reference: 1.1 Physiology Defined

6) Select the molecule from the options below.

a) N
b) H_2O
c) O_2
d) H_2O and O_2

Answer: d

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

Question type: True/False

7) Proteins and RNA are examples of atoms.

Answer: False

Difficulty: Easy
Bloom's: Comprehension
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

Question type: Multiple choice

8) Place the levels of organization in order from MOST to LEAST complex.

a) organismal, system, organ, tissue, cell, molecule, atom
b) organ, system, cell, atom, molecule, organismal, tissue
c) atom, molecule, cell, tissue, organ, system, organismal
d) cell, tissue, organ, organismal, system, atom, molecule

Answer: a

Difficulty: Easy
Bloom's: Knowledge
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

Question type: Text Entry

9) Skin is an example of ___ tissue.

Answer: epithelial

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

Question type: Multiple choice

10) If one is unable to move, even if the tissue is directly stimulated, the first tissue to check would be

a) epithelial tissue
b) connective tissue
c) muscle tissue
d) nervous tissue

Answer: c

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

11) Which of the following is a defining feature of organs?

a) they are composed of two or more different atoms
b) they are composed of two or more different cells
c) they are composed of two or more different molecules
d) they are composed of two or more different tissues

Answer: d

Difficulty: Easy
Bloom's: Knowledge
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.1 Describe the levels of organization that make up the human body.
Section Reference: 1.2 Levels of Organization in the Body

12) Fluids are not circulating around the body, so the problem is most likely due to the _____ systems.

a) muscular and endocrine
b) cardiovascular and lymphatic
c) immune and skeletal
d) respiratory and digestive

Answer: b

Difficulty: Medium
Bloom's: Application

Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.2 Explain the functions of the eleven body systems.
Section Reference: 1.2 Levels of Organization in the Body

13) The gonads, epididymis, vas deferens, uterus, and vagina are all organs that are part of the _____ system, the main function of which is _____.

a) endocrine; formation of a new organism
b) reproductive; formation of a new organism
c) urinary; removal of wastes
d) integumentary; protects the body

Answer: b

Difficulty: Easy
Bloom's: Comprehension
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.2 Explain the functions of the eleven body systems.
Section Reference: 1.2 Levels of Organization in the Body

Question type: Text Entry

14) An emergent property of the ____ system is physical breakdown and absorption of nutrients.

Answer: digestive

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.2 Explain the functions of the eleven body systems.
Section Reference: 1.2 Levels of Organization in the Body

Question type: Multiple choice

15) Integration between the ____ systems allows the body to maintain pH homeostasis.

a) respiratory and urinary
b) endocrine and cardiovascular
c) immune and lymphatic
d) integumentary and immune

Answer: a

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Learning Objective 2: LO 1.2.2 Explain the functions of the eleven body systems.
Section Reference: 1.2 Levels of Organization in the Body

16) Which of the following situations would most likely have the greatest increase in catabolic reactions compared to anabolic reactions occurring in the body?

a) an athlete going through pre-season conditioning
b) a person on a hunger strike
c) a child going through a rapid growth spurt
d) an individual maintaining a healthy eating and exercise plan

Answer: b

Difficulty: Medium
Bloom's: Analysis
Learning Objective 1: LO 1.3 Identify the important life processes of the human body.
Section Reference: 1.3 Life Processes

17) You are watching a cooking show when your stomach suddenly rumbles. This is an example of the life process of

a) responsiveness
b) movement
c) differentiation
d) reproduction

Answer: a

Difficulty: Easy
Bloom's: Application
Learning Objective 1: LO 1.3 Identify the important life processes of the human body.
Section Reference: 1.3 Life Processes

18) We consider movement to have been observed if it occurs at the _____ level.

a) intracellular
b) organismal
c) organ
d) All of the choices are correct.

Answer: d

Difficulty: Easy
Bloom's: Comprehension
Learning Objective 1: LO 1.3 Identify the important life processes of the human body.
Section Reference: 1.3 Life Processes

19) Select the correct relationship between growth and reproduction.

a) both occur when an individual cell increases in size
b) both occur when total numbers of cells increase
c) both occur only when two half-cells merge
d) both occur when the substances around the cells increase in volume

Answer: b

Difficulty: Medium
Bloom's: Analysis
Learning Objective 1: LO 1.3 Identify the important life processes of the human body.
Section Reference: 1.3 Life Processes

20) Many compounds in our body are regulated to maintain homeostatic levels. Which of the following would NOT be maintained in homeostasis?

a) oxygen
b) glucose
c) temperature
d) carbon dioxide
e) All of the choices are normally maintained in homeostasis.

Answer: e

Difficulty: Easy
Bloom's: Knowledge
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Learning Objective 2: LO 1.4.1 Define homeostasis.
Section Reference: 1.4 Homeostasis

21) The urinary and respiratory systems rely on the cardiovascular system to circulate the blood with which they exchange wastes and gases. This reliance is an example of

a) equilibrium
b) emergent properties
c) integration
d) differentiation

Answer: c

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.2 Explain how the organization of the human body affects its functions and life processes.
Section Reference: 1.2 Levels of Organization in the Body

22) Approximately how much of the total body fluid is comprised of plasma?

a) 1/3 * 1/5 = 1/15 (6.6%)
b) 1/3 * 4/5 = 4/15 (26.6%)
c) 2/3 * 1/5 = 2/15 (13.3%)
d) 2/3 * 4/5 = 8/15 (53.3%)

Answer: a

Difficulty: Medium
Bloom's: Analysis
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Learning Objective 2: LO 1.4.2 Distinguish between the body's internal environment and external environment.
Section Reference: 1.4 Homeostasis

23) A 200-pound lean male (60% fluid) has about ___ lbs of interstitial fluid.

a) 32
b) 8
c) 16
d) 64

Answer: a

Difficulty: Medium
Bloom's: Analysis
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Learning Objective 2: LO 1.4.2 Distinguish between the body's internal environment and external environment.
Section Reference: 1.4 Homeostasis

24) The body's internal environment is composed of

a) intracellular fluid
b) extracellular fluid
c) air surrounding the body
d) interstitial fluid only

Answer: b

Difficulty: Easy
Bloom's: Knowledge
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Learning Objective 2: LO 1.4.2 Distinguish between the body's internal environment and external environment.
Section Reference: 1.4 Homeostasis

25) Blood capillaries have anatomical features to increase the transfer between plasma and interstitial fluid to maintain homeostasis. What structural features would you expect would help?

a) few capillaries
b) great distance between cells and capillaries
c) thin walls
d) fewer capillaries with thin walls

Answer: c

Difficulty: Medium
Bloom's: Application
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Section Reference: 1.4 Homeostasis

26) The body uses the nervous and endocrine systems to regulate homeostatic changes, but the endocrine is much slower. This occurs because

a) hormones travel via neurons, which only go to a few places in the body
b) hormones travel via blood, and it takes longer for the blood to reach all the cells of the body
c) hormones travel via the lungs, so they can only reach the body during inspiration
d) hormones travel as electrical signals, and they disappear quickly, so not all signals reach the organs

Answer: b

Difficulty: Easy
Bloom's: Comprehension
Learning Objective 1: LO 1.4 Explain how homeostasis is maintained in the body's internal and external environments.
Section Reference: 1.4 Homeostasis

27) Feedback systems maintain homeostasis by monitoring and responding to changes in a parameter. The monitored parameter maintained in a homeostatic state is called the

a) effector
b) receptor