Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) A person in the anatomical position is visualized to be: 1) _____
A) sitting down. B) standing upright.
C) laying down on his or her back. D) laying down on the stomach.

Answer: B
Diff: 0 Type: MC

2) In the anatomical position, the palms are on the: 2) _____
A) posterior (dorsal) surface. B) lateral surface.
C) superior (cranial) surface. D) anterior (ventral) surface.

Answer: D
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

3) Define homeostasis and homeostatic imbalance.

Answer: Homeostasis is maintenance of the body's internal environment. Disturbances in homeostasis, known as homeostatic imbalances, can result in disease or death if uncorrected.
Diff: 0 Type: ES

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

4) According to the principle of complementarity of structure and function, structure and function are related only at the cellular level. 4) _____

Answer: True False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

5) Which organ system includes blood vessels and the heart? 5) _____
A) endocrine system B) lymphatic system
C) cardiovascular system D) respiratory system

Answer: C
Diff: 0 Type: MC

6) In laboratory, you will study the overall structure and shape of the femur bone without the aid of a microscope. This is a study known as: 6) _____
A) gross anatomy. B) systemic anatomy.
C) microscopic anatomy. D) regional anatomy.

Answer: A
Diff: 0 Type: MC

7) When you go outside on a hot summer day, your body temperature heats up above the normal range. Receptors in your brain detect the change in body temperature. The brain activates nerve cells that send messages to sweat glands, causing the body temperature to fall as the sweat evaporates from the skin. What part of this feedback loop is the effector? 7) _____

A) nerve cells
B) brain
C) sweat glands
D) increased body temperature

Answer: C
Diff: 0 Type: MC

8) What would a needle travel through as it enters the right lung? 8) _____

A) visceral pleura, serous fluid, parietal pleura, right lung
B) parietal pleura, serous fluid, visceral pleura, right lung
C) parietal pleura, serous fluid, right lung, visceral pleura
D) visceral pericardium, serous fluid, parietal pericardium, right lung

Answer: B
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

9) Discuss why anatomical position is used.

Answer: Anatomical position provides accurate communication among scientists and health care professionals since it prevents experimental and medical errors. Anatomical position also provides a common frame of reference from which all body parts and regions are described.
Diff: 0 Type: ES

10) Summarize the principle of complementarity of structure and function.

Answer: The principle of complementarity can be summarized as form follows function. In other words, the form of a structure is always such that it best suits its function.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

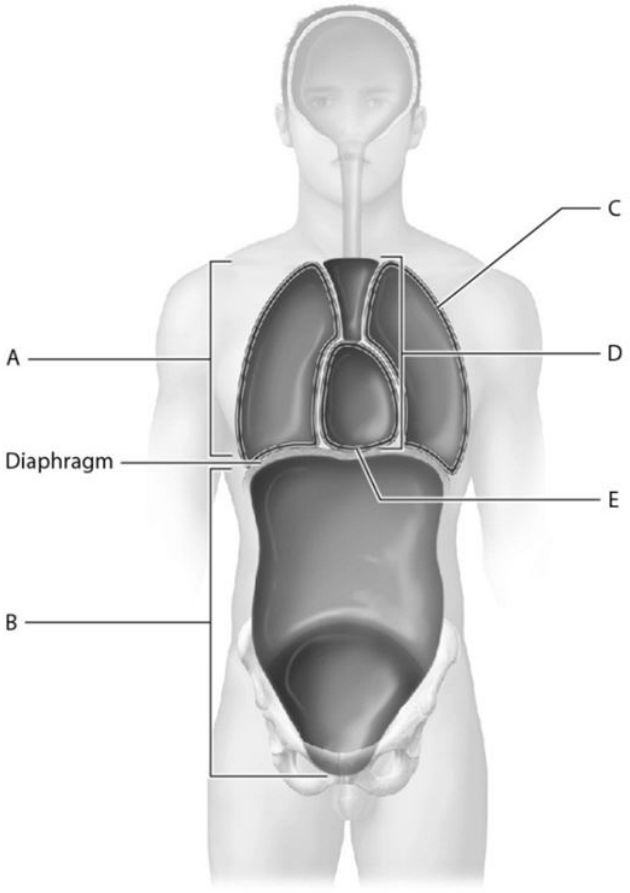
11) What major organs are housed in the thoracic cavity? 11) _____

A) urinary bladder, reproductive organs
B) lungs, heart, esophagus, trachea
C) stomach, intestines, liver, pancreas
D) brain and spinal cord

Answer: B
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct body cavity or subdivision.



12) Identify the thoracic cavity. 12) _____

Answer: A
Diff: 0 Type: SA

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

13) What is a good strategy for class or laboratory preparation? 13) _____
A) Read and prepare notes before attending your class or laboratory.
B) Avoid reading before class as you may get confused.
C) Focus on reading your materials on the weekends when you have hours to spend.
D) Only read after you have attended class or laboratory.

Answer: A
Diff: 0 Type: MC

14) The vertebral region is superior to the: 14) _____
A) cervical region.
B) sacral region.
C) occipital region.
D) cephalic region.

Answer: B
Diff: 0 Type: MC

15) What results when anabolism occurs more than catabolism in an organism? 15) _____
A) movement B) irritability C) growth D) excretion

Answer: C
Diff: 0 Type: MC

16) Which region of the abdominopelvic cavity lies between the right and left lumbar regions? 16) _____
A) umbilical region B) hypogastric region
C) epigastric region D) right lumbar region

Answer: A
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

17) Describe anatomical position.

Answer: In anatomical position, the body is standing upright, feet are shoulder width apart, upper limbs are at the sides of the trunk, and the head and palms are facing forward.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

18) Jesse felt comfortable using the microscope after listening to directions from his lab professor. His learning style preference must be: 18) _____
A) visual learner. B) tactile learner.
C) auditory learner. D) kinesthetic learner.

Answer: C
Diff: 0 Type: MC

19) When we imagine a person exhibiting the anatomical position, the palms of the hands are assumed to be facing: 19) _____
A) forward. B) down. C) to the side. D) backward.

Answer: A
Diff: 0 Type: MC

20) What is the smallest level of structural organization in the human body? 20) _____
A) tissue level B) cellular level C) organ level D) chemical level

Answer: D
Diff: 0 Type: MC

21) How does the effector restore homeostasis in a negative feedback loop? 21) _____
A) The effector increases and reinforces the initial stimulus.
B) The effector amplifies the response, but does not continue indefinitely.
C) The effector opposes the initial stimulus and shuts off when conditions return to the normal range.
D) The effector causes a rapid change in a variable.

Answer: C
Diff: 0 Type: MC

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

22) The crural region is posterior (dorsal) to the sural region. 22) _____

Answer: True False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

23) What is deep to the visceral pericardium? 23) _____

A) parietal pericardium
B) heart muscle
C) pericardial cavity
D) visceral peritoneum

Answer: B
Diff: 0 Type: MC

24) What is NOT one of the four core principles related to homeostasis? 24) _____

A) gradients
B) cell-cell communication
C) metabolism
D) feedback loops

Answer: C
Diff: 0 Type: MC

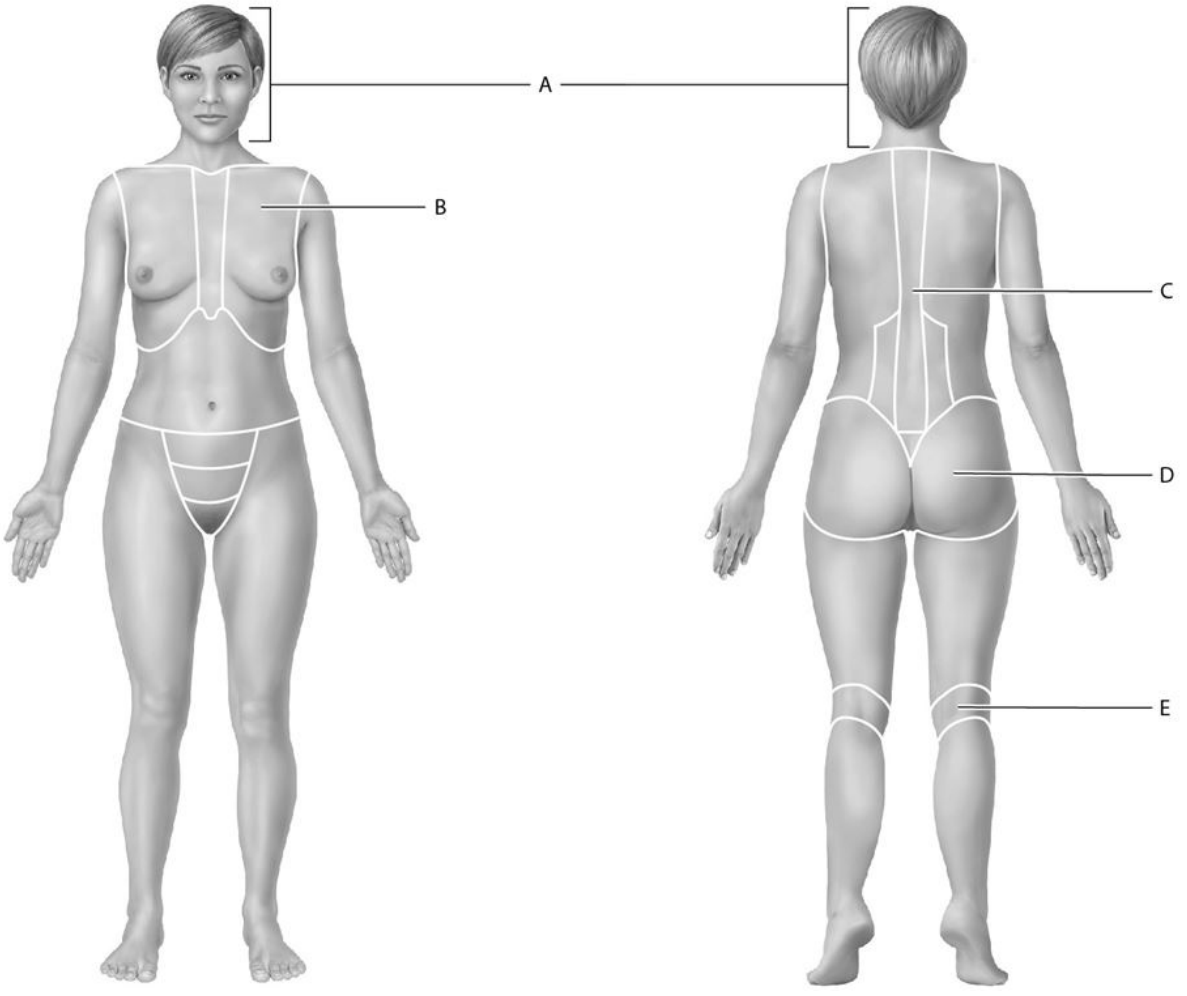
25) Which of the following illustrates a gradient? 25) _____

A) equal amounts of something exist in areas that are connected
B) equilibrium or balance between two unconnected areas
C) more of something exists in one area than another and the two areas are connected
D) maintenance of a relatively stable internal environment

Answer: C
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct regional anatomical term.



26) Identify the vertebral region. 26) _____

Answer: C
Diff: 0 Type: SA

27) Identify the cephalic region. 27) _____

Answer: A
Diff: 0 Type: SA

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

28) You should wait to read the textbook until you have heard the material presented in lecture or laboratory. 28) _____

Answer: True ✔ False
Diff: 0 Type: TF

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

29) List the four core principles that relate to homeostasis.

Answer: The four core principles that relate to homeostasis are:
1) feedback loops
2) the relationship of structure and function
3) gradients
4) cell-cell communication

Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

30) The thoracic cavity is situated superior to the abdominopelvic cavity and separated by the diaphragm. Therefore, the diaphragm creates a: 30) _____

A) midsagittal (median) plane.
B) parasagittal plane.
C) frontal (coronal) plane.
D) transverse (horizontal) plane, or cross section.

Answer: D

Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

31) Explain how the popliteal and patellar regions differ.

Answer: The popliteal region refers to the posterior (dorsal) side of the knee while the patellar region refers to the anterior (ventral) side of the knee. We may say that the popliteal region is posterior to the patellar region.

Diff: 0 Type: ES

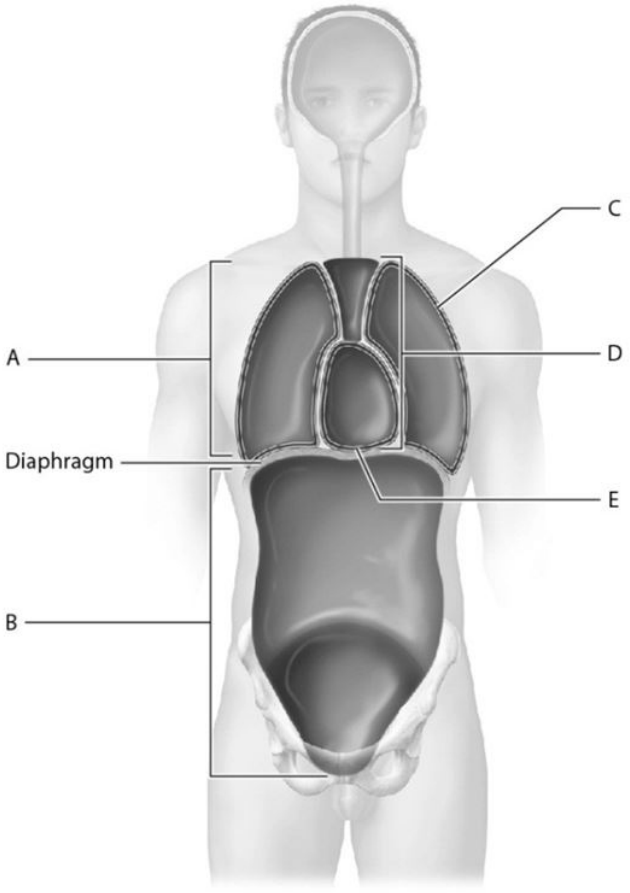
32) A female patient presents at the emergency room with pain in the right lower quadrant. Which organs might be involved?

Answer: The appendix, the right ovary, the first part of the large intestine, or the last part of the small intestine may be the source of pain in this female patient.

Diff: 0 Type: ES

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct body cavity or subdivision.



33) Identify the cavity that houses the heart. 33) _____

Answer: E
Diff: 0 Type: SA

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

34) A directional term that means the same as posterior is: 34) _____
A) ventral. B) dorsal. C) anterior. D) sagittal.

Answer: B
Diff: 0 Type: MC

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

35) The transverse (horizontal plane or cross section) plane divides the body into anterior and posterior parts. 35) _____

Answer: True ✔ False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

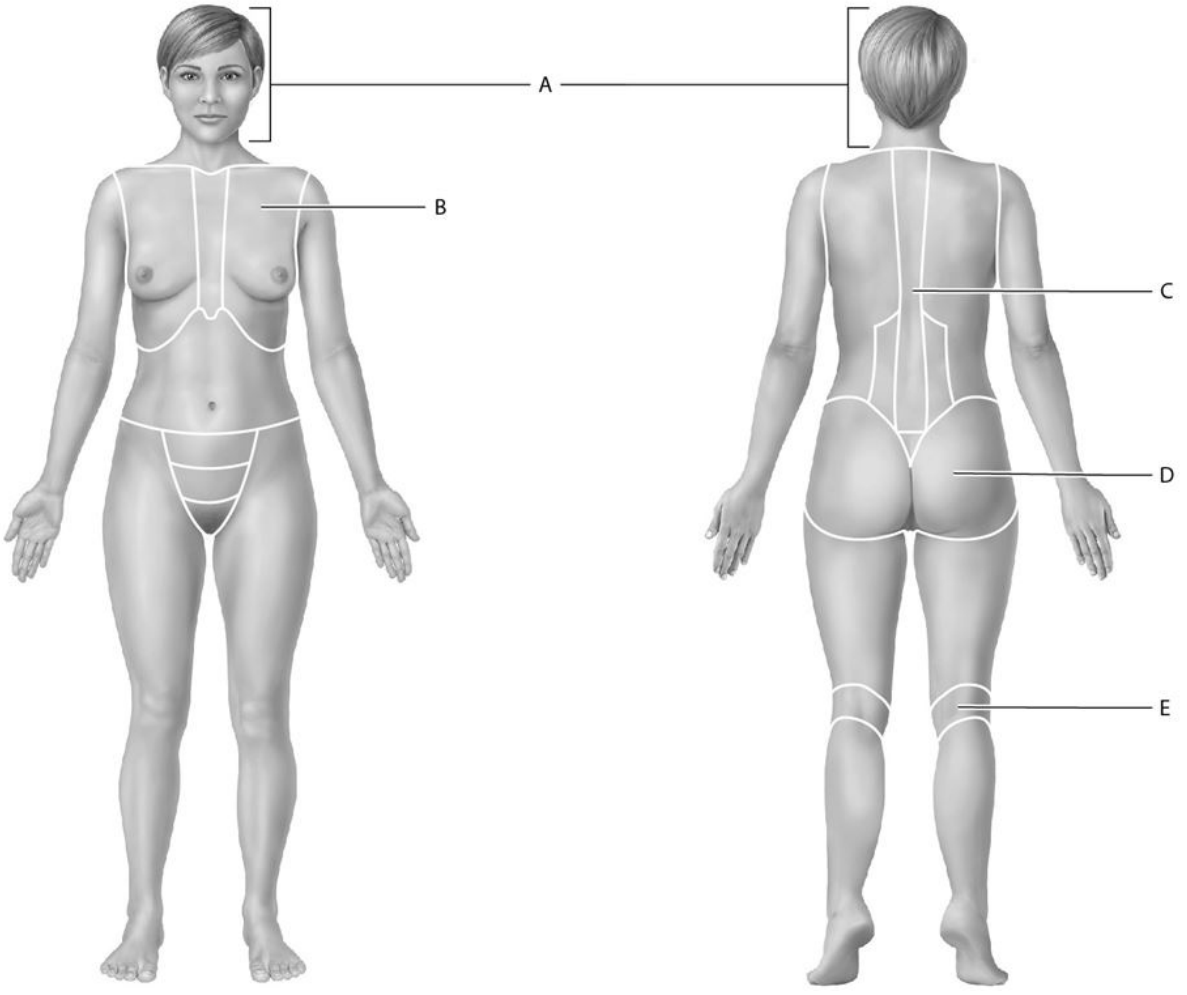
36) Why should a student use the SQ3R method? 36) _____

A) The SQ3R method provides a plan for a student to improve textbook reading skills.
B) The SQ3R method provides a student with ways to improve time management skills.
C) The SQ3R method provides a student with a strategy for improving test taking skills.
D) The SQ3R method provides a student with a strategy for taking notes during lecture class.

Answer: A
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct regional anatomical term.



37) Identify the popliteal region. 37) _____

Answer: E
Diff: 0 Type: SA

38) Identify the gluteal region. 38) _____

Answer: D
Diff: 0 Type: SA

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

39) Select the appropriate directional term to complete this sentence: The mouth is _____ to the nose. 39) _____

A) distal
B) superior (cranial)
C) inferior (caudal)
D) posterior (dorsal)

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

40) List the four quadrants and nine regions of the abdominopelvic cavity.

Answer: The four quadrants are the right upper quadrant, right lower quadrant, left upper quadrant, and left lower quadrant. The nine regions are the right hypochondriac region, epigastric region, left hypochondriac region, right lumbar region, umbilical region, left lumbar region, right iliac (inguinal) region, hypogastric region, and left iliac (inguinal) region.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

41) The maintenance of a relatively constant internal environment is termed: 41) _____

A) effector control.
B) positive feedback.
C) homeostasis.
D) integration.

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

42) During lab dissections, Kelly's instructor directs the students to make a midsagittal cut into their specimen. However, Kelly's lab partner thought she heard the instructor say that a cut along the median plane was to be made. Explain what type of cut should be made into the specimen.

Answer: A midsagittal plane of section is also known as a median plane of section. Both divide the body or body part into equal left and right parts. Kelly and her lab partner should make a cut so that their specimen is divided into equal left and right parts.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

43) A nerve cell releases chemical messengers to trigger changes in a nearby muscle cell. This is example of a core principle known as: 43) _____

A) cell-cell communication.
B) principle of complementarity of structure and function.
C) gradients.
D) feedback loops.

Answer: A
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

44) Explain how scratching a chaffing label on a shirt is an example of a negative feedback loop.

Answer: An irritation to the skin from a chaffing shirt label is a stimulus detected by a receptor (or sensor). The receptor sends this information to a control center, the brain, where it is determined that the skin irritation is out of normal range. The control center sends signals to effectors that cause physiological responses to return the variable to normal homeostatic range. Scratching, the response, stops the chaffing by moving the label off the skin, and thus removes the stimulus.

Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

45) The point of the shoulder is also known as the: 45) _____

A) brachial region.
B) digital region.
C) antebrachial region.
D) acromial region.

Answer: D

Diff: 0 Type: MC

46) What part of a feedback loop causes physiological responses to return the variable to the normal homeostatic range? 46) _____

A) effector
B) stimulus
C) control center
D) receptor (sensor)

Answer: A

Diff: 0 Type: MC

47) What is a good way to manage time in preparation for your anatomy and physiology class? 47) _____

A) I should stay up all night the night before the test to maximize what is stored in short-term memory.
B) I study only on the weekends when I have many hours of free time.
C) I make a schedule and budget my time.
D) I should delay studying until the day or two before the test to best remember the material.

Answer: C

Diff: 0 Type: MC

48) What are the two major methods by which cells communicate to coordinate their functions? 48) _____

A) effectors and responses
B) temperature gradients and pressure gradients
C) positive feedback loops and negative feedback loops
D) chemical messengers and/or electrical signals

Answer: D

Diff: 0 Type: MC

49) What learning modality is engaged when students participate in study groups? 49) _____

A) kinesthetic learner
B) tactile learner
C) visual learner
D) auditory learner

Answer: A

Diff: 0 Type: MC

50) Which directional term indicates the front side of the body? 50) _____

A) posterior (dorsal) B) anterior (ventral)
C) medial D) superior (cranial)

Answer: B
Diff: 0 Type: MC

51) Which two organ systems include the pancreas as a component? 51) _____

A) respiratory and cardiovascular systems B) digestive and urinary systems
C) digestive and endocrine systems D) endocrine and lymphatic systems

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

52) Pleurisy is the inflammation of the serous membranes surrounding the lungs. With pleurisy, the inflamed membranes may secrete more serous fluid than normal. Predict the effects of excess serous fluid on serous membrane function.

Answer: Serous fluid is an extremely thin, slippery, watery layer situated between the visceral and parietal pleura. This fluid is produced by the cells of the membrane to lubricate around the organs and reduce friction as the lungs move against adjacent structures. Excess fluid around the lungs puts pressure on the lungs and can impair the lubricating function of the serous membranes, making it harder for these membranes to reduce friction.
Diff: 0 Type: ES

53) List and describe the components of a feedback loop.

Answer: The components of a feedback loop are the stimulus, receptor (sensor), control center, and effector/response. A stimulus is a regulated variable outside its normal range. A receptor (sensor) is a cellular structure that picks up information and sends it to a control center. The control center is often cells in the brain or an endocrine organ (gland). The control center compares the current value to its set point and determines that it's out of range. The control center sends signals to effectors. Effectors are cells or organs that cause physiological responses that return the variable to the normal homeostatic range.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

54) Serous membranes line certain cavities within the: 54) _____

A) ventral cavities. B) cranial cavity.
C) vertebral (spinal) cavity. D) dorsal cavities.

Answer: A
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

55) Instead of using the directional terms superior and inferior to describe positions on the upper and lower limbs, what directional terms are used? Define these terms.

Answer: Instead of using superior and inferior for the limbs, the terms proximal and distal are used. Proximal refers to something being closer to the point of origin (the trunk) while distal refers to something being farther away from the point of origin. Structures nearer the trunk are proximal while structures farther away are distal.
Diff: 0 Type: ES

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

56) The endocrine system is responsible for generating heat. 56) _____

Answer: True False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

57) The type of feedback that increases or enhances the effects of the variable is: 57) _____
A) responsive. B) positive. C) negative. D) neutral.

Answer: B
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

58) Peggy is having surgery on the right carpal region. A 3 cm incision will be made deep to the skin and muscle, but will be superficial to the bone. Explain to her where her surgery will occur.

Answer: Peggy will have surgery on the wrist, or carpal, region of her right hand. The 3 cm incision will penetrate through the skin and muscle, but will not go as deep into her wrist as the bone.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

59) Which of the following is the most complex structural level of organization? 59) _____
A) organ level B) cellular level C) tissue level D) chemical level

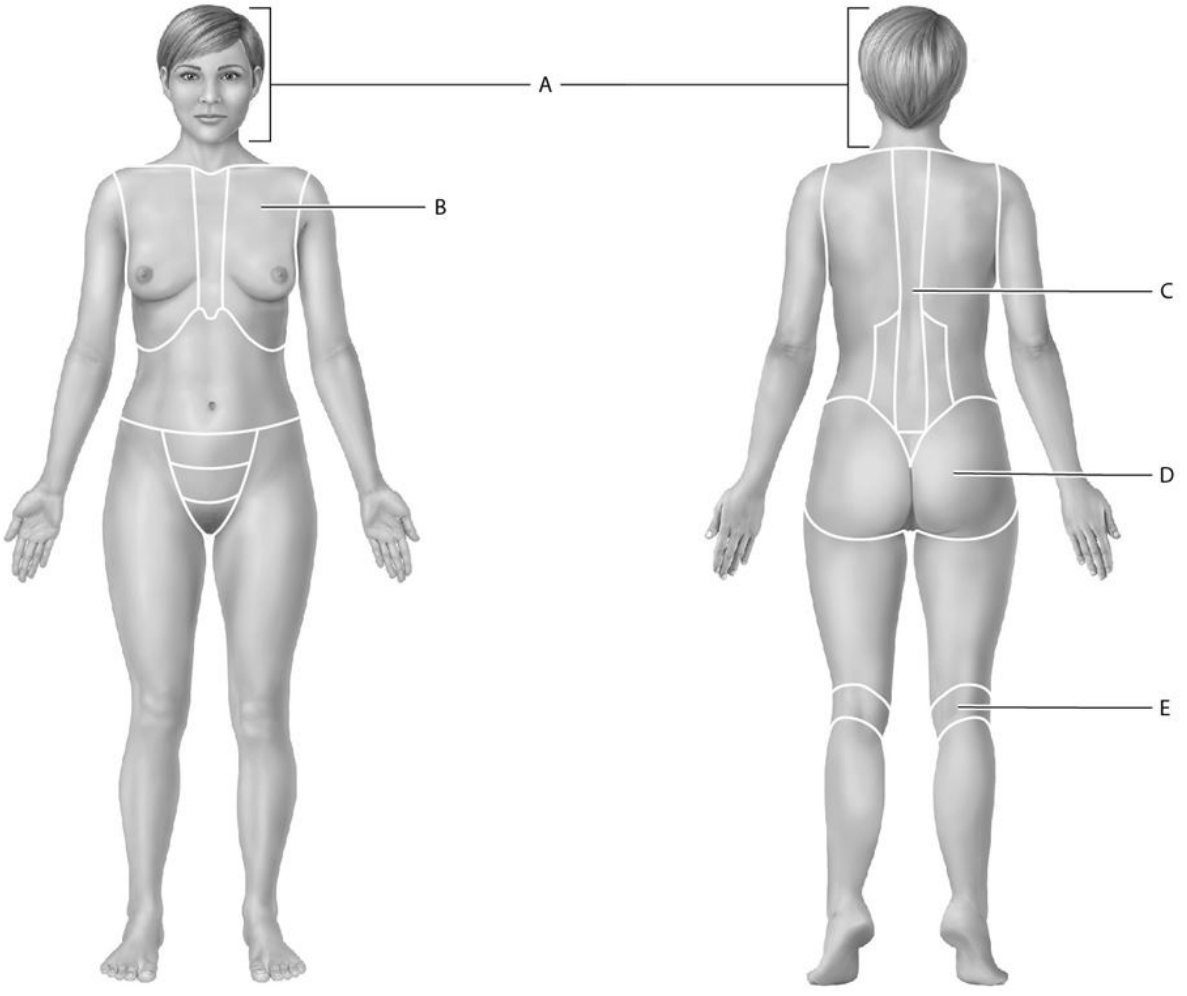
Answer: A
Diff: 0 Type: MC

60) James sustained a cut to his mental region, also known as his: 60) _____
A) nose. B) chin. C) mouth. D) cheek.

Answer: B
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct regional anatomical term.



61) Identify the thoracic region. 61) _____

Answer: B
Diff: 0 Type: SA

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

62) Jose is having back surgery. Discuss the specific type of section the surgeon should use to make a cut along his vertebral region.

Answer: The vertebral region is situated along the body's midline. To operate on this region, the surgeon should make a cut along the midsagittal, or medial, plane on Jose's posterior (dorsal) body surface. The midsagittal plane divides the body into equal left and right parts.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

63) When you go outside on a hot summer day, your body temperature heats up above the normal range. Receptors in your brain detect the change in body temperature. The brain activates nerve cells that send messages to sweat glands, causing the body temperature to fall as the sweat evaporates from the skin. What part of this feedback loop is the stimulus? 63) _____

A) nerve cells
B) increased body temperature
C) brain
D) sweat glands

Answer: B
Diff: 0 Type: MC

64) The hand is also known as the: 64) _____

A) manual region.
B) plantar region.
C) pedal region.
D) acromial region.

Answer: A
Diff: 0 Type: MC

65) Which regions of the abdominopelvic cavity are situated medially? 65) _____

A) right and left hypochondriac regions, and the epigastric region
B) epigastric, umbilical, hypogastric regions
C) right and left lumbar regions and the umbilical region
D) right hypochondriac, right lumbar, and right iliac (inguinal) regions

Answer: B
Diff: 0 Type: MC

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

66) When studying, you should actively read the textbook by taking notes and making diagrams. 66) _____

Answer: True False
Diff: 0 Type: TF

67) Serous fluid lubricates around organs and reduces friction as the organ moves against adjacent structures. 67) _____

Answer: True False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

68) Body parts that are described as medial are considered to be: 68) _____

A) toward the front.
B) toward the head.
C) closer to the midline of the body.
D) closer to the point of origin.

Answer: C
Diff: 0 Type: MC

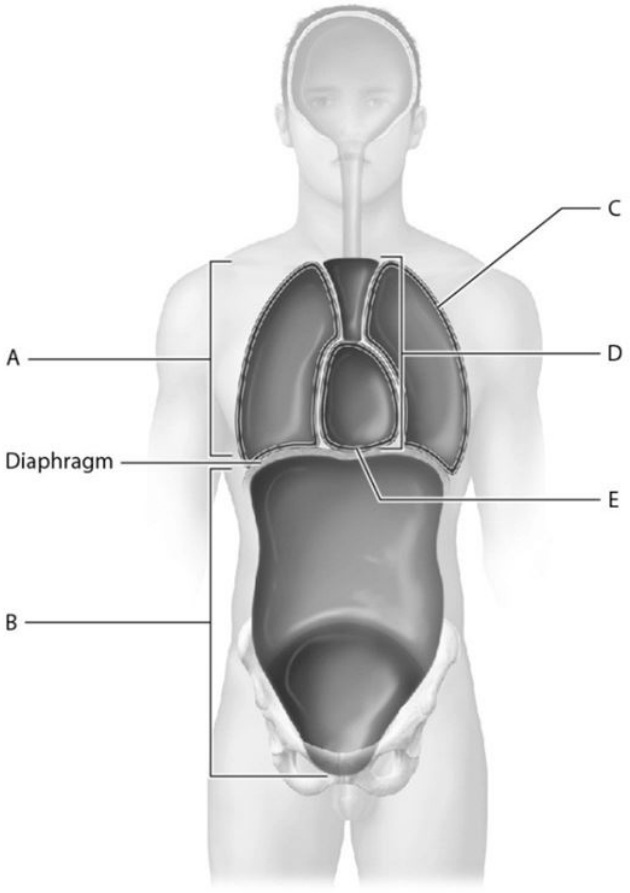
69) A person who is standing facing forward with hands at the sides, palms facing forward, is in the: 69) _____

A) supine position.
B) frontal position.
C) anatomical position.
D) sagittal position.

Answer: C
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct body cavity or subdivision.



70) Identify the mediastinum. 70) _____

Answer: D
Diff: 0 Type: SA

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

71) A plane that divides the body into superior and inferior parts is known as a: 71) _____
A) frontal (coronal) plane. B) transverse (horizontal, or cross) plane.
C) sagittal plane. D) midsagittal (median) plane.

Answer: B
Diff: 0 Type: MC

72) What separates the thoracic cavity from the abdominopelvic cavity? 72) _____
A) diaphragm B) pericardium C) mediastinum D) pleura

Answer: A
Diff: 0 Type: MC

73) What is a major function of the respiratory system? 73) _____

A) digest food and absorb nutrients into the blood
B) produce vitamin D and retain water
C) return excess tissue fluid to the cardiovascular system
D) deliver oxygen to the blood and remove carbon dioxide from the body

Answer: D
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

74) Discuss the role of effector in both the negative and positive feedback loops.

Answer: In a negative feedback loop, the effector activity opposes the initial stimulus and shuts off when conditions return to the normal range. However, in a positive feedback loop, the effector's activity actually increases–positive feedback reinforces the initial stimulus using a loop of increasing output that amplifies the response. A positive feedback loop therefore causes a rapid change in a variable.
Diff: 0 Type: ES

75) Explain where the pericardial cavity is situated in relation to the pericardial membranes.

Answer: The pericardial cavity is situated between the visceral pericardium (attached to the heart muscle) and the outer parietal pericardium.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

76) What organ(s) is/are covered by the pleura? 76) _____

A) heart
B) lungs
C) brain and spinal cord
D) digestive organs

Answer: B
Diff: 0 Type: MC

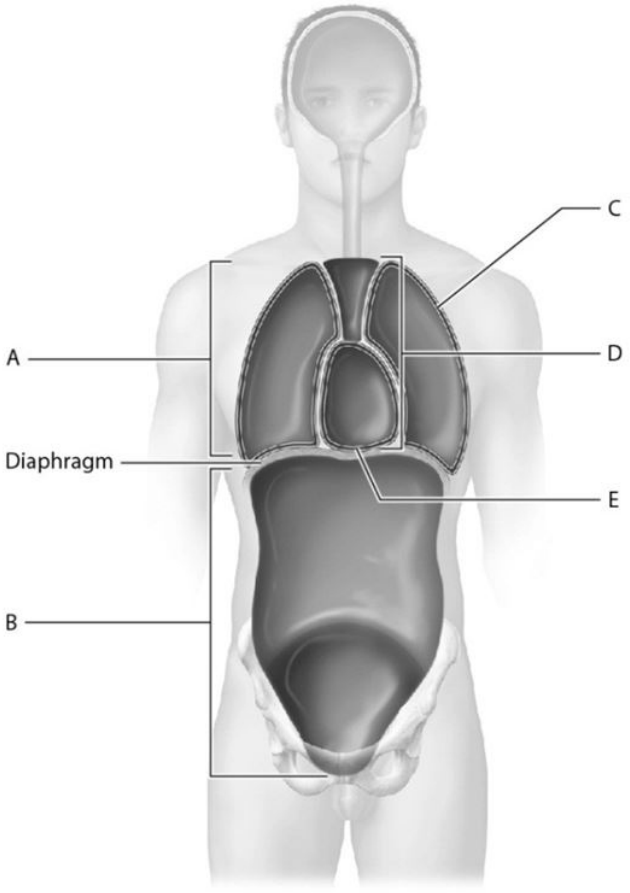
77) A mother breastfeeds her infant. As long as the baby suckles his mother's breast, the mother's mammary glands produce milk. Suckling, the stimulus, increases milk production, the response. This scenario is best described as: 77) _____

A) anatomical position.
B) a negative feedback loop.
C) a positive feedback loop.
D) principle of complementarity of structure and function.

Answer: C
Diff: 0 Type: MC

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct body cavity or subdivision.



78) Identify the cavity where the left lung is housed. 78) _____

Answer: C
Diff: 0 Type: SA

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

79) Explain how gross anatomy and microscopic anatomy differ.

Answer: The field of gross anatomy examines structures, including organs and organ systems that can be seen with the unaided eye. The field of microscopic anatomy examines structures that require a microscope to be seen.
Diff: 0 Type: ES

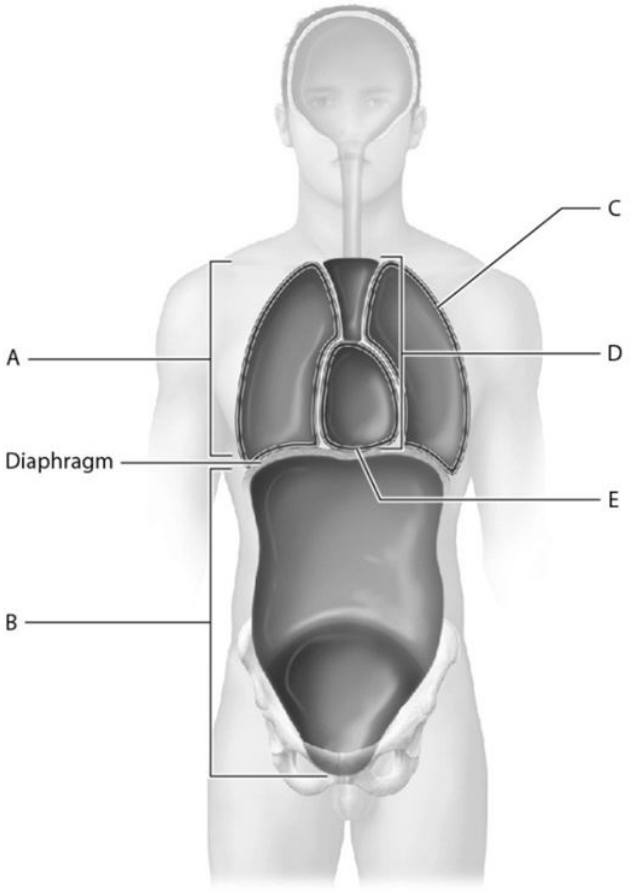
TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

80) The smallest level of organization in the human body is the cellular level. 80) _____

Answer: True ● False
Diff: 0 Type: TF

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Match the following with the correct body cavity or subdivision.



81) Identify the abdominopelvic cavity. 81) _____

Answer: B
Diff: 0 Type: SA

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

82) Which organ system supports the body and protects internal organs? 82) _____
A) endocrine system
B) muscular system
C) skeletal system
D) digestive system

Answer: C
Diff: 0 Type: MC

83) What does the SQ3R method stand for? 83) _____
A) share, quiz, query, question, and read
B) survey, question, read, recite, and review
C) sort, query, read, recite, and review
D) search, quiet, research, read, and remember

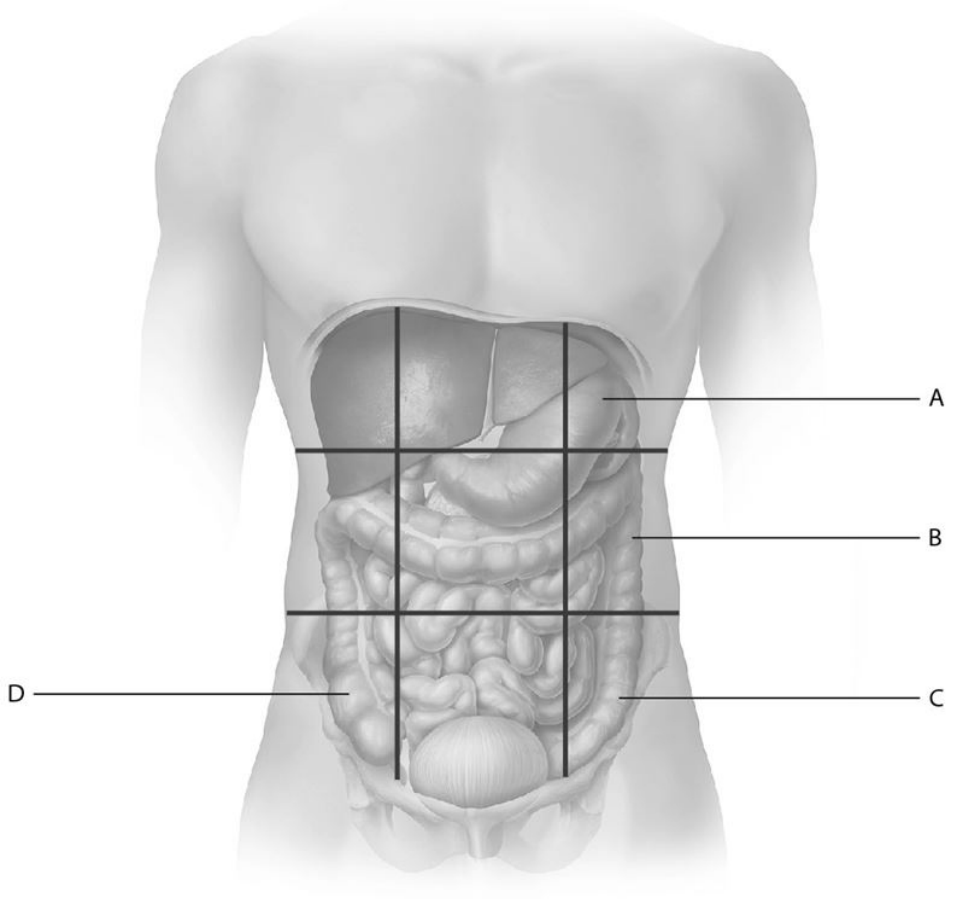
Answer: B
Diff: 0 Type: MC

84) Dr. Mitchell performs open heart surgery. The incision he makes through the sternal region of his patient divides the thoracic cavity into equal left and right parts. This incision must be made along a: 84) _____

A) midsagittal (median) plane.
B) frontal (coronal) plane.
C) transverse (horizontal) plane.
D) sagittal plane.

Answer: A
Diff: 0 Type: MC

85) Select the letter that represents the left iliac (inguinal) region. 85) _____



A) A
B) B
C) C
D) D

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

86) Gillian prefers to study alone. She mostly draws diagrams from the textbook or makes charts and tables to organize her thoughts as she reads. Determine and discuss her learning style.

Answer: Gillian prefers a visual/nonverbal learning style. A visual/nonverbal learner usually best understands concepts through the use of diagrams, illustrations, and other visual media without text. Visual/nonverbal learners may experience more success in studying alone than in study groups.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

87) Which of the following best summarizes the principle of complementarity of structure and function? 87) _____
A) maintenance of a stable internal environment
B) function follows structure
C) form follows function
D) structure drives function

Answer: C
Diff: 0 Type: MC

88) A cell or organ that responds to the directions of the control center in a negative feedback loop is termed a(n): 88) _____
A) regulator. B) stimulus. C) receptor. D) effector.

Answer: D
Diff: 0 Type: MC

89) Learners who thrive in an environment with visual stimulation, such as looking at diagrams or illustrations, have a preference for a modality known as: 89) _____
A) kinesthetic. B) auditory. C) tactile. D) visual.

Answer: D
Diff: 0 Type: MC

90) What are the two subcavities of the dorsal body cavity? 90) _____
A) thoracic and abdominopelvic cavities B) cranial and vertebral (spinal) cavities
C) abdominal and pelvic cavities D) pleural and pericardial cavities

Answer: B
Diff: 0 Type: MC

91) Which of the following is the correct sequence, from simplest to most complex, in the levels of structural organization of the human body? 91) _____
A) chemical level, tissue level, cellular level, organ system level, organ level, organismal level
B) cellular level, chemical level, tissue level, organ level, organ system level, organismal level
C) cellular level, tissue level, chemical level, organ level, organ system level, organismal level
D) chemical level, cellular level, tissue level, organ level, organ system level, organismal level

Answer: D
Diff: 0 Type: MC

92) How could you use the Learning Outcomes in this book to help you study? 92) _____
A) Write down the answers to the Learning Outcomes.
B) Recite the Learning Outcomes until you have them memorized.
C) Read through the Learning Outcomes after you have completed a section.
D) Rewrite each Learning Outcome in your notes.

Answer: A
Diff: 0 Type: MC

93) What smaller cavity within the thoracic cavity houses the heart, great blood vessels, esophagus, and trachea? 93) _____

A) abdominal cavity
B) diaphragm
C) peritoneal cavity
D) mediastinum

Answer: D
Diff: 0 Type: MC

94) Sierra says she learns more from reading the textbook for class than from listening to lecture. She is most likely a(n): 94) _____

A) kinesthetic learner.
B) auditory learner.
C) visual learner.
D) tactile learner.

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

95) Define metabolism.

Answer: Metabolism includes the wide range of chemical processes carried out by living organisms. Metabolism includes both "building" processes in which smaller chemicals are combined to form larger ones, and "breaking down" processes in which larger chemicals are broken down into smaller ones.
Diff: 0 Type: ES

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

96) Select the appropriate directional term to complete this sentence: The skeletal muscles are _____ to the skin. 96) _____

A) superficial
B) deep
C) posterior
D) inferior (caudal)

Answer: A
Diff: 0 Type: MC

97) Blood pressure in arteries is higher than the blood pressure in capillaries. Blood flows from arteries to capillaries due to the presence of a: 97) _____

A) positive feedback loop.
B) homeostatic imbalance.
C) pressure gradient.
D) negative feedback loop.

Answer: C
Diff: 0 Type: MC

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

98) Describe the SQ3R method for reading a textbook.

Answer: The SQ3R method stands for survey, questions, read, recite, and review. First, you should survey the chapter by skimming the material and figures. Next, form questions about the content in the chapter that you can answer as you read. Actively read by taking notes and drawing diagrams. As you read, recite the material by speaking aloud. The final step is to review what you have read. You may choose to answer questions in the book, write summaries, or discuss topics aloud with study partners.
Diff: 0 Type: ES

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

99) Negative feedback loops produce responses in the opposite direction of the initial stimulus while positive feedback loops produce responses in the same direction of the initial stimulus. 99) _____

Answer: True False
Diff: 0 Type: TF

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

100) In laboratory, you will study tissues. This area of study is known as: 100) _____
A) physiology. B) histology. C) gross anatomy. D) cytology.

Answer: B
Diff: 0 Type: MC

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

101) Patients are always examined while they are standing in the anatomical position. 101) _____

Answer: True False
Diff: 0 Type: TF

1) B
Diff: 0 Page Ref:
Topic:

2) D
Diff: 0 Page Ref:
Topic:

3) Homeostasis is maintenance of the body's internal environment. Disturbances in homeostasis, known as homeostatic imbalances, can result in disease or death if uncorrected.
Diff: 0 Page Ref:
Topic:

4) FALSE
Diff: 0 Page Ref:
Topic:

5) C
Diff: 0 Page Ref:
Topic:

6) A
Diff: 0 Page Ref:
Topic:

7) C
Diff: 0 Page Ref:
Topic:

8) B
Diff: 0 Page Ref:
Topic:

9) Anatomical position provides accurate communication among scientists and health care professionals since it prevents experimental and medical errors. Anatomical position also provides a common frame of reference from which all body parts and regions are described.
Diff: 0 Page Ref:
Topic:

10) The principle of complementarity can be summarized as form follows function. In other words, the form of a structure is always such that it best suits its function.
Diff: 0 Page Ref:
Topic:

11) B
Diff: 0 Page Ref:
Topic:

12) A
Diff: 0 Page Ref:
Topic:

13) A
Diff: 0 Page Ref:
Topic:

14) B
Diff: 0 Page Ref:
Topic:

15) C
Diff: 0 Page Ref:
Topic:

16) A
Diff: 0 Page Ref:
Topic:

17) In anatomical position, the body is standing upright, feet are shoulder width apart, upper limbs are at the sides of the trunk, and the head and palms are facing forward.
Diff: 0 Page Ref:
Topic:

18) C
Diff: 0 Page Ref:
Topic:

19) A
Diff: 0 Page Ref:
Topic:

20) D
Diff: 0 Page Ref:
Topic:

21) C
Diff: 0 Page Ref:
Topic:

22) FALSE
Diff: 0 Page Ref:
Topic:

23) B
Diff: 0 Page Ref:
Topic:

24) C
Diff: 0 Page Ref:
Topic:

25) C
Diff: 0 Page Ref:
Topic:

26) C
Diff: 0 Page Ref:
Topic:

27) A
Diff: 0 Page Ref:
Topic:

28) FALSE
Diff: 0 Page Ref:
Topic:

29) The four core principles that relate to homeostasis are:
1) feedback loops
2) the relationship of structure and function
3) gradients
4) cell-cell communication
Diff: 0 Page Ref:
Topic:

30) D
Diff: 0 Page Ref:
Topic:

31) The popliteal region refers to the posterior (dorsal) side of the knee while the patellar region refers to the anterior (ventral) side of the knee. We may say that the popliteal region is posterior to the patellar region.
Diff: 0 Page Ref:
Topic:

32) The appendix, the right ovary, the first part of the large intestine, or the last part of the small intestine may be the source of pain in this female patient.
Diff: 0 Page Ref:
Topic:

33) E
Diff: 0 Page Ref:
Topic:

34) B
Diff: 0 Page Ref:
Topic:

35) FALSE
Diff: 0 Page Ref:
Topic:

36) A
Diff: 0 Page Ref:
Topic:

37) E
Diff: 0 Page Ref:
Topic:

38) D
Diff: 0 Page Ref:
Topic:

39) C
Diff: 0 Page Ref:
Topic:

40) The four quadrants are the right upper quadrant, right lower quadrant, left upper quadrant, and left lower quadrant. The nine regions are the right hypochondriac region, epigastric region, left hypochondriac region, right lumbar region, umbilical region, left lumbar region, right iliac (inguinal) region, hypogastric region, and left iliac (inguinal) region.
Diff: 0 Page Ref:
Topic:

41) C
Diff: 0 Page Ref:
Topic:

42) A midsagittal plane of section is also known as a median plane of section. Both divide the body or body part into equal left and right parts. Kelly and her lab partner should make a cut so that their specimen is divided into equal left and right parts.
Diff: 0 Page Ref:
Topic:

43) A
Diff: 0 Page Ref:
Topic:

44) An irritation to the skin from a chaffing shirt label is a stimulus detected by a receptor (or sensor). The receptor sends this information to a control center, the brain, where it is determined that the skin irritation is out of normal range. The control center sends signals to effectors that cause physiological responses to return the variable to normal homeostatic range. Scratching, the response, stops the chaffing by moving the label off the skin, and thus removes the stimulus.
Diff: 0 Page Ref:
Topic:

45) D
Diff: 0 Page Ref:
Topic:

46) A
Diff: 0 Page Ref:
Topic:

47) C
Diff: 0 Page Ref:
Topic:

48) D
Diff: 0 Page Ref:
Topic:

49) A
Diff: 0 Page Ref:
Topic:

50) B
Diff: 0 Page Ref:
Topic:

51) C
Diff: 0 Page Ref:
Topic:

52) Serous fluid is an extremely thin, slippery, watery layer situated between the visceral and parietal pleura. This fluid is produced by the cells of the membrane to lubricate around the organs and reduce friction as the lungs move against adjacent structures. Excess fluid around the lungs puts pressure on the lungs and can impair the lubricating function of the serous membranes, making it harder for these membranes to reduce friction.
Diff: 0 Page Ref:
Topic:

53) The components of a feedback loop are the stimulus, receptor (sensor), control center, and effector/response. A stimulus is a regulated variable outside its normal range. A receptor (sensor) is a cellular structure that picks up information and sends it to a control center. The control center is often cells in the brain or an endocrine organ (gland). The control center compares the current value to its set point and determines that it's out of range. The control center sends signals to effectors. Effectors are cells or organs that cause physiological responses that return the variable to the normal homeostatic range.
Diff: 0 Page Ref:
Topic:

54) A
Diff: 0 Page Ref:
Topic:

55) Instead of using superior and inferior for the limbs, the terms proximal and distal are used. Proximal refers to something being closer to the point of origin (the trunk) while distal refers to something being farther away from the point of origin. Structures nearer the trunk are proximal while structures farther away are distal.
Diff: 0 Page Ref:
Topic:

56) TRUE
Diff: 0 Page Ref:
Topic:

57) B
Diff: 0 Page Ref:
Topic:

58) Peggy will have surgery on the wrist, or carpal, region of her right hand. The 3 cm incision will penetrate through the skin and muscle, but will not go as deep into her wrist as the bone.
Diff: 0 Page Ref:
Topic:

59) A
Diff: 0 Page Ref:
Topic:

60) B
Diff: 0 Page Ref:
Topic:

61) B
Diff: 0 Page Ref:
Topic:

62) The vertebral region is situated along the body's midline. To operate on this region, the surgeon should make a cut along the midsagittal, or medial, plane on Jose's posterior (dorsal) body surface. The midsagittal plane divides the body into equal left and right parts.
Diff: 0 Page Ref:
Topic:

63) B
Diff: 0 Page Ref:
Topic:

64) A
Diff: 0 Page Ref:
Topic:

65) B
Diff: 0 Page Ref:
Topic:

66) TRUE
Diff: 0 Page Ref:
Topic:

67) TRUE
Diff: 0 Page Ref:
Topic:

68) C
Diff: 0 Page Ref:
Topic:

69) C
Diff: 0 Page Ref:
Topic:

70) D
Diff: 0 Page Ref:
Topic:

71) B
Diff: 0 Page Ref:
Topic:

72) A
Diff: 0 Page Ref:
Topic:

73) D
Diff: 0 Page Ref:
Topic:

74) In a negative feedback loop, the effector activity opposes the initial stimulus and shuts off when conditions return to the normal range. However, in a positive feedback loop, the effector's activity actually increases–positive feedback reinforces the initial stimulus using a loop of increasing output that amplifies the response. A positive feedback loop therefore causes a rapid change in a variable.
Diff: 0 Page Ref:
Topic:

75) The pericardial cavity is situated between the visceral pericardium (attached to the heart muscle) and the outer parietal pericardium.
Diff: 0 Page Ref:
Topic:

76) B
Diff: 0 Page Ref:
Topic:

77) C
Diff: 0 Page Ref:
Topic:

78) C
Diff: 0 Page Ref:
Topic:

79) The field of gross anatomy examines structures, including organs and organ systems that can be seen with the unaided eye. The field of microscopic anatomy examines structures that require a microscope to be seen.
Diff: 0 Page Ref:
Topic:

80) FALSE
Diff: 0 Page Ref:
Topic:

81) B
Diff: 0 Page Ref:
Topic:

82) C
Diff: 0 Page Ref:
Topic:

83) B
Diff: 0 Page Ref:
Topic:

84) A
Diff: 0 Page Ref:
Topic:

85) C
Diff: 0 Page Ref:
Topic:

86) Gillian prefers a visual/nonverbal learning style. A visual/nonverbal learner usually best understands concepts through the use of diagrams, illustrations, and other visual media without text. Visual/nonverbal learners may experience more success in studying alone than in study groups.
Diff: 0 Page Ref:
Topic:

87) C
Diff: 0 Page Ref:
Topic:

88) D
Diff: 0 Page Ref:
Topic:

89) D
Diff: 0 Page Ref:
Topic:

90) B
Diff: 0 Page Ref:
Topic:

91) D
Diff: 0 Page Ref:
Topic:

92) A
Diff: 0 Page Ref:
Topic:

93) D
Diff: 0 Page Ref:
Topic:

94) C
Diff: 0 Page Ref:
Topic:

95) Metabolism includes the wide range of chemical processes carried out by living organisms. Metabolism includes both "building" processes in which smaller chemicals are combined to form larger ones, and "breaking down" processes in which larger chemicals are broken down into smaller ones.
Diff: 0 Page Ref:
Topic:

96) A
Diff: 0 Page Ref:
Topic:

97) C
Diff: 0 Page Ref:
Topic:

98) The SQ3R method stands for survey, questions, read, recite, and review. First, you should survey the chapter by skimming the material and figures. Next, form questions about the content in the chapter that you can answer as you read. Actively read by taking notes and drawing diagrams. As you read, recite the material by speaking aloud. The final step is to review what you have read. You may choose to answer questions in the book, write summaries, or discuss topics aloud with study partners.
Diff: 0 Page Ref:
Topic:

99) TRUE
Diff: 0 Page Ref:
Topic:

100) B
Diff: 0 Page Ref:
Topic:

101) FALSE
Diff: 0 Page Ref:
Topic: