

Name _____

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

- 1) The cavities housing the eyes are called _____ cavities. 1) _____
A) orbital B) frontal C) cranial D) nasal

Answer: A

- Explanation: A)
 B)
 C)
 D)

- 2) An oblique cut is one that is cut _____. 2) _____
A) vertical right and left
B) perpendicular to vertical and horizontal
C) diagonally between the vertical and horizontal
D) horizontal right and left

Answer: C

- Explanation: A)
 B)
 C)
 D)

- 3) Homeostasis is the condition in which the body maintains _____. 3) _____
A) the lowest possible energy usage
B) a relatively stable internal environment, within limits
C) a dynamic state within an unlimited range
D) a static state with no deviation from preset points

Answer: B

- Explanation: A)
 B)
 C)
 D)

- 4) The dorsal body cavity is the site of which of the following? 4) _____
A) brain B) liver C) intestines D) lungs

Answer: A

- Explanation: A)
 B)
 C)
 D)

5) Subdivisions of anatomy include which of the following?

5) _____

- A) gross, regional, dissection, and surface
- B) gross, macroscopic, visual, and microscopic
- C) gross, regional, systemic, and surface
- D) regional, surface, visual, and microscopic

Answer: C

Explanation: A)
B)
C)
D)

6) Which of the following would *not* be a functional characteristic of life?

6) _____

- A) maintenance of boundaries
- B) decay
- C) responsiveness to external stimuli
- D) movement

Answer: B

Explanation: A)
B)
C)
D)

7) The term *pollex* refers to the _____.

7) _____

- A) calf
- B) thumb
- C) great toe
- D) fingers

Answer: B

Explanation: A)
B)
C)
D)

8) The parietal pleura would represent a serous membrane _____.

8) _____

- A) lining the thoracic cavity
- B) covering individual lungs
- C) covering the heart
- D) lining the abdominal cavity

Answer: A

Explanation: A)
B)
C)
D)

- 9) Choose the following statement that is *not* completely correct regarding serous membranes. 9) _____
- A) Serous membranes are divided into parietal and visceral membranes with a potential space between the two.
 - B) Visceral pericardium covers the surface of the heart, and parietal pericardium lines the walls of the heart.
 - C) Serous membranes secrete a watery lubricating fluid.
 - D) Serosa are very thin, double-layered structures.

Answer: B

Explanation: A)
B)
C)
D)

- 10) If you consider your home air conditioner in terms of homeostasis, then the wall thermostat would be the _____. 10) _____
- A) control center B) effector C) receptor D) variable

Answer: A

Explanation: A)
B)
C)
D)

- 11) Which of the following are survival needs of the body? 11) _____
- A) nutrients, water, growth, and reproduction
 - B) water, atmospheric pressure, growth, and movement
 - C) nutrients, water, movement, and reproduction
 - D) nutrients, water, atmospheric pressure, and oxygen

Answer: D

Explanation: A)
B)
C)
D)

- 12) Which of the following organs or structures would be found in the left iliac region? 12) _____
- A) liver B) intestines C) stomach D) appendix

Answer: B

Explanation: A)
B)
C)
D)

- 13) Which of the following describes a parasagittal plane? 13) _____
- A) two cuts dividing the body into left and right halves
 - B) any sagittal plane except the median
 - C) a transverse cut just above the knees
 - D) any cut dividing the body into anterior and posterior

Answer: B

Explanation: A)
B)
C)
D)

- 14) One of the functional characteristics of life is irritability. This refers to _____. 14) _____
- A) the nervous system causing all living things to sometimes experience anger
 - B) the necessity for all organisms to reproduce
 - C) indigestible food residues stimulating the excretory system
 - D) sensing changes in the environment and then reacting or responding to them

Answer: D

Explanation: A)
B)
C)
D)

- 15) Which body cavity protects the nervous system? 15) _____
- A) dorsal B) thoracic C) vertebral D) cranial

Answer: A

Explanation: A)
B)
C)
D)

- 16) A good example of a positive feedback mechanism would be _____. 16) _____
- A) blood calcium level regulation
 - B) body temperature regulation
 - C) regulating glucose levels in the blood
 - D) enhancement of labor contractions

Answer: D

Explanation: A)
B)
C)
D)

17) What is a vertical section through the body, dividing it into left and right, called? 17) _____
A) sagittal B) regional C) transverse D) frontal

Answer: A
Explanation: A)
 B)
 C)
 D)

18) A structure that is composed of two or more tissues would be a(n) _____. 18) _____
A) complex tissue B) organ C) complex cell D) organ system

Answer: B
Explanation: A)
 B)
 C)
 D)

19) The anatomical position is used _____. 19) _____
A) as a standard reference point for directional terms regardless of the actual position of the body
B) as the most comfortable way to stand when dissecting a specimen
C) rarely, because people don't usually assume this position
D) only when a body is lying down

Answer: A
Explanation: A)
 B)
 C)
 D)

20) _____ cavities are spaces within joints. 20) _____
A) Orbital B) Nasal C) Oral D) Synovial

Answer: D
Explanation: A)
 B)
 C)
 D)

21) What is the specific name for the hip region? 21) _____
A) pedal B) manus C) coxal D) inguinal

Answer: C
Explanation: A)
 B)
 C)
 D)

22) What is a vertical section through the body, dividing it into anterior and posterior regions called? 22) _____
A) median B) frontal C) sagittal D) transverse

Answer: B

Explanation: A)
 B)
 C)
 D)

23) What is the main, general purpose of negative feedback? 23) _____
A) to control all body system tissues B) to keep the body's sugar high
C) to maintain homeostasis D) to regulate excretion

Answer: C

Explanation: A)
 B)
 C)
 D)

24) What is the posterior side of the patella called? 24) _____
A) popliteal B) antecubital C) crural D) sural

Answer: A

Explanation: A)
 B)
 C)
 D)

25) The study of the heart may incorporate many aspects of anatomy but as a whole you would say it is _____ anatomy. 25) _____
A) gross B) developmental C) systemic D) microscopic

Answer: A

Explanation: A)
 B)
 C)
 D)

- 26) Select the most correct statement. 26) _____
- A) Organ systems can be composed of cells or tissues, but not both.
 - B) The immune system is closely associated with the lymphatic system.
 - C) The endocrine system is not a true structural organ system.
 - D) Organ systems operate independently of each other to maintain life.

Answer: B

Explanation: A)
B)
C)
D)

- 27) Which one of the following systems responds to environmental stimuli? 27) _____
- A) muscular B) nervous C) lymphatic D) immune

Answer: B

Explanation: A)
B)
C)
D)

- 28) In which abdominopelvic cavity is the stomach located? 28) _____
- A) right lower B) left upper C) right upper D) left lower

Answer: B

Explanation: A)
B)
C)
D)

- 29) Which of the following describes the operation of the heart and blood vessels? 29) _____
- A) cardiovascular anatomy B) systemic anatomy
C) cardiovascular physiology D) systemic physiology

Answer: A

Explanation: A)
B)
C)
D)

30) Which of the following statements is true concerning feedback mechanisms? 30) _____
A) Negative feedback mechanisms work to prevent sudden severe changes within the body.
B) Blood glucose levels are regulated by positive feedback mechanisms.
C) Negative feedback mechanisms tend to increase the original stimulus.
D) Positive feedback mechanisms always result in excessive damage to the host.

Answer: A
Explanation: A)
B)
C)
D)

31) Place the following in correct sequence from simplest to most complex: 31) _____
1. molecules
2. atoms
3. tissues
4. cells
5. organ
A) 2-1-4-3-5 B) 2-1-3-4-5 C) 1-2-4-3-5 D) 1-2-3-4-5

Answer: A
Explanation: A)
B)
C)
D)

32) The heart lies in the _____ cavity. 32) _____
A) dorsal B) superior mediastinal
C) pericardial D) pleural

Answer: C
Explanation: A)
B)
C)
D)

33) In which cavities are the lungs located? 33) _____
A) mediastinum, thoracic, and ventral B) pericardial, ventral, and thoracic
C) pleural, dorsal, and abdominal D) pleural, ventral, and thoracic

Answer: D
Explanation: A)
B)
C)
D)

- 34) Which of these is *not* part of the dorsal cavity? 34) _____
A) thoracic cavity B) vertebral cavity
C) cranial cavity D) spinal cord

Answer: A

Explanation: A)
B)
C)
D)

- 35) Histology would be best defined as a study of _____. 35) _____
A) the gross structures of the body B) cell chemistry
C) tissues D) cells

Answer: C

Explanation: A)
B)
C)
D)

- 36) Choose the anatomical topic and definition that is *not* correctly matched. 36) _____
A) Embryology: study of the changes in an individual from conception to birth.
B) Microscopic anatomy: study of structures too small to be seen by the naked eye.
C) Gross anatomy: study of structures visible to the eye.
D) Cytology: study of the structures in a particular region.

Answer: D

Explanation: A)
B)
C)
D)

- 37) The single most abundant chemical substance of the body, accounting for 60% to 80% of body weight, is _____. 37) _____
A) hydrogen B) protein C) water D) oxygen

Answer: C

Explanation: A)
B)
C)
D)

42) Which term means toward or at the back of the body, behind?

A) anterior

B) distal

C) dorsal

D) lateral

42) _____

Answer: C

Explanation: A)

B)

C)

D)

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

43) The ability to sense changes in the environment and respond to them is called _____.

43) _____

Answer: responsiveness or irritability

Explanation:

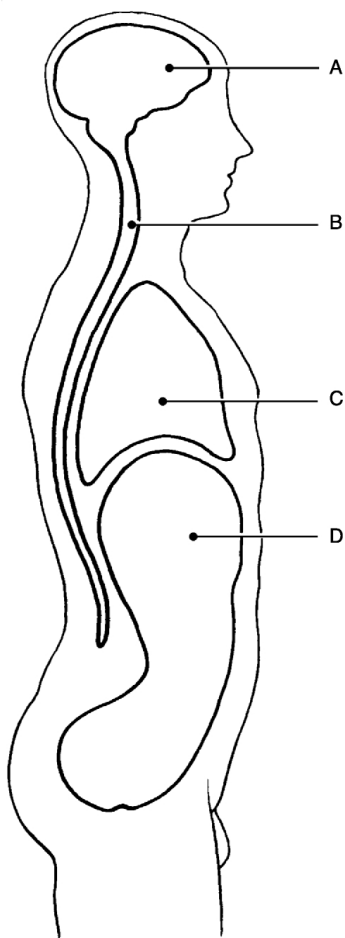


Figure 1.1

Using Figure 1.1, match the following cavities:

44) Thoracic cavity.

44) _____

Answer: C

Explanation:

45) Why must a normal body temperature be maintained in order for chemical reactions to be continued at life-sustaining rates?

45) _____

Answer: If body temperature is too low, chemical reactions slow and eventually stop. If body temperature is too high, chemical reactions speed up and body proteins lose their normal shape, resulting in loss of function.

Explanation:

46) _____ is explained by chemical and physical principles and is concerned with the function of specific organs or organic systems.

46) _____

Answer: Physiology

Explanation:

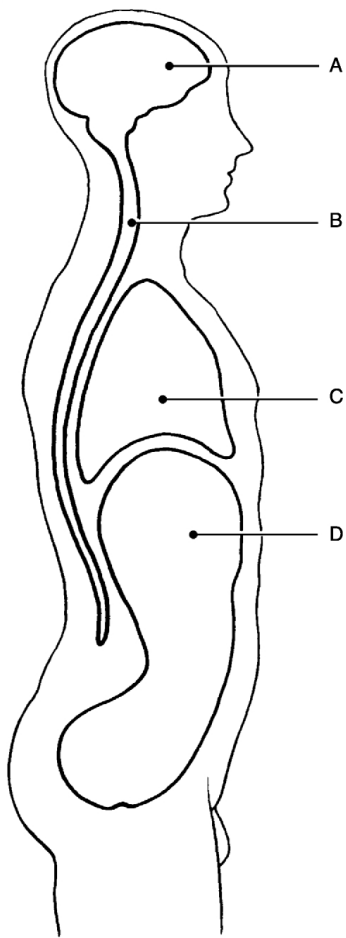


Figure 1.1

Using Figure 1.1, match the following cavities:

47) Vertebral cavity.

Answer: B

Explanation:

47) _____

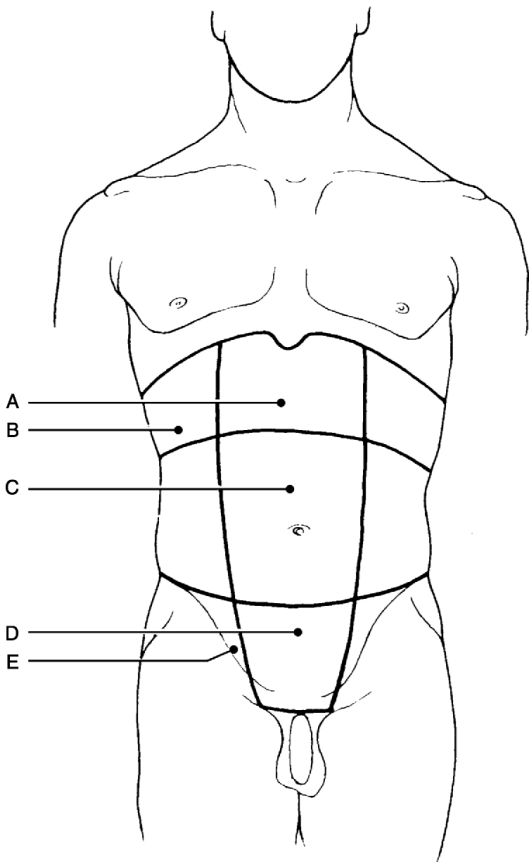


Figure 1.2

Using Figure 1.2, match the following regions:

48) Hypogastric (pubic) region.

48) _____

Answer: D

Explanation:

49) Why are the abdominopelvic cavity organs the most vulnerable in an automobile accident?

49) _____

Answer: The walls of the abdominal cavity are formed only by trunk muscles and are not reinforced by bone. The pelvic organs receive a somewhat greater degree of protection from the bony pelvis.

Explanation:

50) The elbow is _____ to the wrist.

50) _____

Answer: proximal

Explanation:

51) What is the single most abundant chemical substance in the body?

51) _____

Answer: water

Explanation:

52) What can happen when the usual negative feedback mechanisms are overwhelmed and destructive positive feedback mechanisms take over? 52) _____

Answer: Homeostatic imbalances increase our risk for illness and produce the changes we associate with aging.

Explanation:

53) The term that describes the back of the elbow is _____. 53) _____

Answer: olecranal

Explanation:

54) What broad term covers all chemical reactions that occur within the body cells? 54) _____

Answer: metabolism

Explanation:

55) Similar cells that have a common function are called _____. 55) _____

Answer: tissues

Explanation:

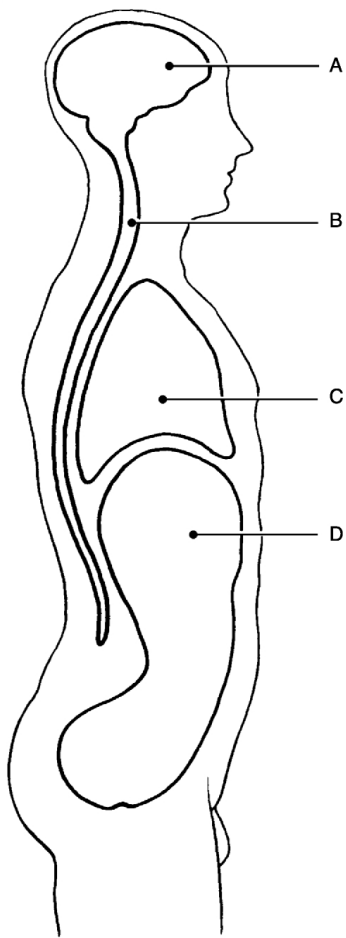


Figure 1.1

Using Figure 1.1, match the following cavities:

56) Abdominal cavity.

Answer: D

Explanation:

56) _____

57) The term that describes the heel region is _____.

Answer: calcaneal

Explanation:

57) _____

58) Why is anatomical terminology necessary?

Answer: Anatomical terms are precise words that have limited usage, which prevents confusion when describing the location of body parts.

Explanation:

58) _____

59) The _____ cavity contains tiny bones that transmit sound vibrations to the organ of hearing in the inner ear.

59) _____

Answer: middle ear

Explanation:

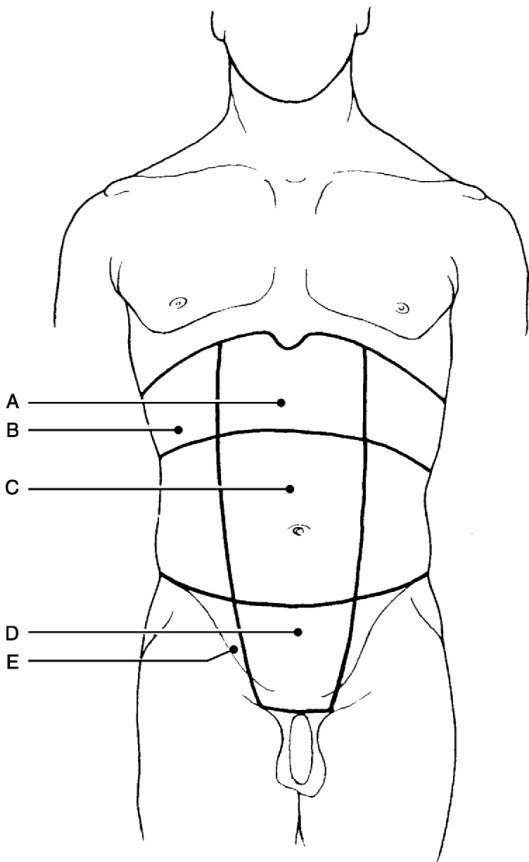


Figure 1.2

Using Figure 1.2, match the following regions:

60) Right hypochondriac.

60) _____

Answer: B

Explanation:

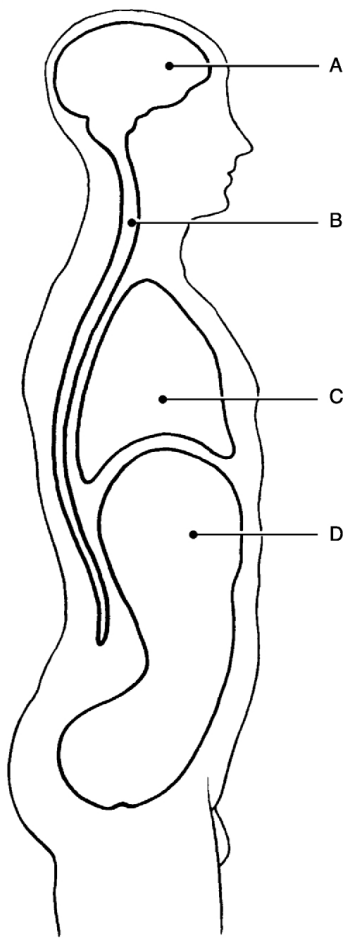


Figure 1.1

Using Figure 1.1, match the following cavities:

61) Cranial cavity.

Answer: A

Explanation:

61) _____

62) What is a dynamic equilibrium of your internal environment termed?

Answer: homeostasis

Explanation:

62) _____

63) The five cavities of the head are cranial, oral, nasal, middle ear, and _____.

Answer: orbital

Explanation:

63) _____

64) Which feedback mechanism causes the variable to deviate further and further from its original value or range?

64) _____

Answer: positive feedback

Explanation:

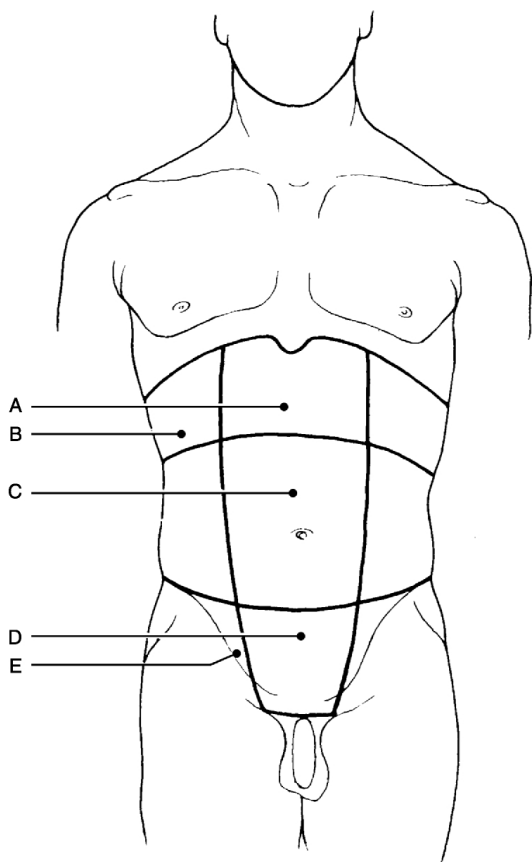


Figure 1.2

Using Figure 1.2, match the following regions:

65) Right iliac (inguinal) region.

65) _____

Answer: E

Explanation:

66) What is the serous membrane that covers the intestines called?

66) _____

Answer: visceral

Explanation:

67) What does gross anatomy study?

67) _____

Answer: Larger structures of the body that can be seen with the naked eye.

Explanation:

68) What type of homeostatic feedback reflex is the withdrawal reflex?

68) _____

Answer: negative

Explanation:

69) What is the function of the serous membranes?

69) _____

Answer: They act to reduce friction and allow the organs to slide across cavity walls.

Explanation:

70) Fully describe the anatomical position for the human body.

70) _____

Answer: The body is erect, arms hanging at the sides, palms forward, and thumbs pointed away from the midline.

Explanation:

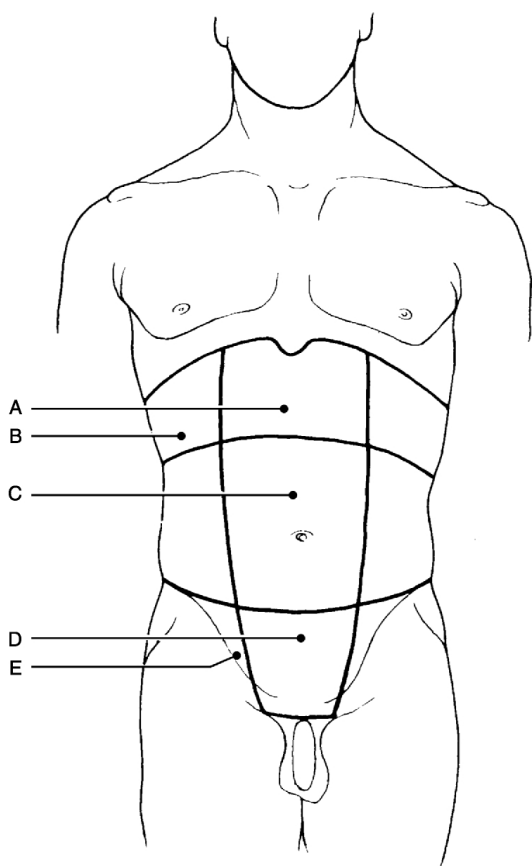


Figure 1.2

Using Figure 1.2, match the following regions:

71) Umbilical region.

71) _____

Answer: C

Explanation:

72) What is the pathway between the receptor and the control center in the reflex pathway called? 72) _____

Answer: afferent pathway

Explanation:

73) The higher we go in the mountains, the greater the atmospheric pressure, which causes a loss of oxygen. Comment on this statement. 73) _____

Answer: The statement is backwards—the higher we go, the less atmospheric pressure, therefore less oxygen.

Explanation:

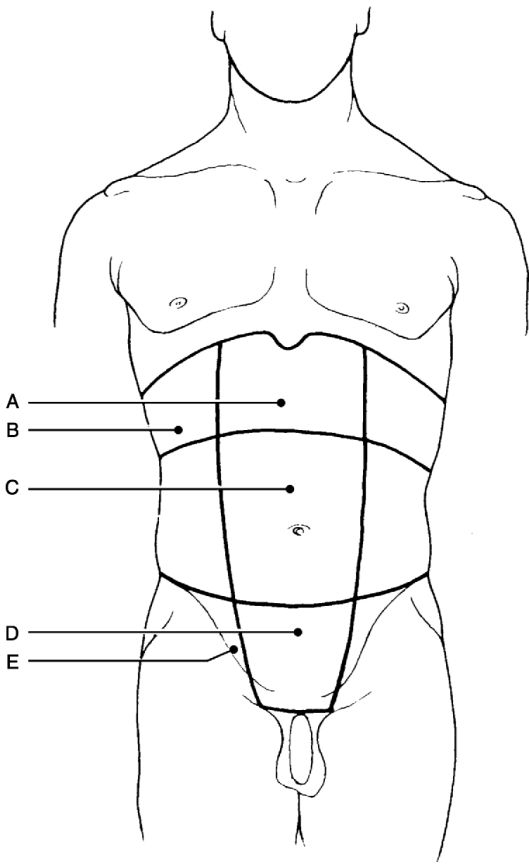


Figure 1.2

Using Figure 1.2, match the following regions:

74) Epigastric region. 74) _____

Answer: A

Explanation:

75) What is the goal of all of the negative feedback mechanisms of the body? 75) _____

Answer: The goal is to prevent sudden severe changes within the body.

Explanation:

- 76) What does the "principle of complementarity of structures and function" mean? 76) _____
 Answer: What a structure can do depends on its specific form, or "structure determines function."
 Explanation:
- 77) Can lungs carry out excretory functions? Explain your answer. 77) _____
 Answer: Yes, carbon dioxide is a metabolic waste the lungs excrete.
 Explanation:
- 78) _____ physiology concerns urine production and kidney function. 78) _____
 Answer: Renal
 Explanation:
- 79) Which cavity contains the bladder, some reproductive organs, and the rectum? 79) _____
 Answer: pelvic
 Explanation:
- 80) Which body system would be most affected by a lower than normal atmospheric pressure? 80) _____
 Answer: respiratory system
 Explanation:

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

- 81) Positive feedback mechanisms tend to increase the original stimulus. 81) _____
 Answer: True False
 Explanation:
- 82) The serous membrane that lines the peritoneal cavity wall is called visceral peritoneum. 82) _____
 Answer: True False
 Explanation:
- 83) It is important for any organism to maintain its boundaries, so that its internal environment remains distinct from the external environment surrounding it. 83) _____
 Answer: True False
 Explanation:
- 84) The epigastric region is located superior to the umbilical region. 84) _____
 Answer: True False
 Explanation:

- 85) Lungs carry out an excretory function. 85) _____
Answer: True False
Explanation:
- 86) Regardless of the variable being regulated, all homeostatic control mechanisms have at least three interdependent components. 86) _____
Answer: True False
Explanation:
- 87) The anatomical position means the body is standing at attention with the palms facing forward and the thumbs pointing away from the body. 87) _____
Answer: True False
Explanation:
- 88) The right hypochondriac region contains the majority of the stomach. 88) _____
Answer: True False
Explanation:
- 89) Without some sort of negative feedback mechanism, it would be impossible to keep our body chemistry in balance. 89) _____
Answer: True False
Explanation:
- 90) A tissue consists of groups of similar cells that have a common function. 90) _____
Answer: True False
Explanation:
- 91) A major function of serous membranes is to decrease friction. 91) _____
Answer: True False
Explanation:
- 92) The elbow is proximal to the shoulder. 92) _____
Answer: True False
Explanation:
- 93) Embryology concerns the structural changes that occur in an individual from conception through old age. 93) _____
Answer: True False
Explanation:

Match the following cavities and organs:

103) Uterus.

Answer: A

A) Abdominopelvic

103) _____

Match the following systems and organs:

104) Trachea, bronchi, alveoli.

Answer: A

A) Respiratory

104) _____

Match the following systems to their functions:

105) Provides support and levers for muscles to work on.

Answer: A

A) Skeletal

105) _____

Match the following examples of feedback mechanisms:

106) Blood clotting

Answer: A

A) Positive feedback

106) _____

Match the following systems to their functions:

107) Protects underlying organs from mechanical damage and synthesizes vitamin D.

Answer: A

A) Integumentary

107) _____

Match the following systems to their functions:

108) Produces antibodies that neutralize foreign substances.

Answer: A

A) Immune

108) _____

Match the following systems and organs:

109) Kidneys, bladder, ureters.

Answer: A

A) Urinary

109) _____

Match the following examples of feedback mechanisms:

110) Blood pressure

Answer: A

A) Negative feedback

110) _____

Match the regional/directional terms and examples:

111) The stomach is _____ to the spine.
Answer: A

A) Anterior

111) _____

Match the following systems to their functions:

112) Controls the body with chemical molecules called hormones.
Answer: A

A) Endocrine

112) _____

Match the following regional terms and common terms:

113) Chest.
Answer: A

A) Thoracic

113) _____

114) Buttock.
Answer: B

B) Gluteal

114) _____

Match the following systems to their functions:

115) Delivers oxygen and nutrients to the tissues.
Answer: A

A) Cardiovascular

115) _____

Match the regional/directional terms and examples:

116) The bridge of the nose is _____ to the left eye.
Answer: A

A) Medial

116) _____

117) The heart is _____ to the stomach.
Answer: B

B) Superior

117) _____

Match the following cavities and organs:

118) Stomach.
Answer: A

A) Abdominopelvic

118) _____

Match the following systems to their functions:

119) Removes and filters excess fluid from tissues.
Answer: A

A) Lymphatic

119) _____

129) Judy is 16 years old and collapses on the gym floor with severe pain in her chest wall. She is rushed by ambulance to the emergency room. Judy is diagnosed with pleurisy and is given an anti-inflammatory through the intravenous route. Explain why an anti-inflammatory would be prescribed for someone with pleurisy.

Answer: The pleural space contains a small amount of fluid that acts as a lubricant, allowing the pleurae to slide smoothly over each other as the lungs expand and contract. Pleurisy is an inflammation of the parietal pleura of the lungs. When inflammation occurs in the pleural space, the pleurae do not slide smoothly and this causes severe pain.

130) The patient was admitted to the hospital with hypertension. The development of arteriosclerosis has increased peripheral resistance to blood flow, worsening his hypertension. This is an example of what type of feedback loop and why?

Answer: Positive feedback loops are common in pathophysiological perpetuation of disease. For example, arteriosclerotic hypertension results in positive feedback mechanisms that enhance and propagate the initial step in the chain of events, which is hypertension.

131) Explain why an 80-year-old woman requires a much longer time to recover from the flu than does a woman who is age 30.

Answer: As we age, our body's control systems become less efficient. As a result, our internal environment becomes less and less stable.

Answer Key
Testname: C1

- 1) A
- 2) C
- 3) B
- 4) A
- 5) C
- 6) B
- 7) B
- 8) A
- 9) B
- 10) A
- 11) D
- 12) B
- 13) B
- 14) D
- 15) A
- 16) D
- 17) A
- 18) B
- 19) A
- 20) D
- 21) C
- 22) B
- 23) C
- 24) A
- 25) A
- 26) B
- 27) B
- 28) B
- 29) A
- 30) A
- 31) A
- 32) C
- 33) D
- 34) A
- 35) C
- 36) D
- 37) C
- 38) C
- 39) B
- 40) A
- 41) B
- 42) C

Answer Key
Testname: C1

- 43) responsiveness or irritability
- 44) C
- 45) If body temperature is too low, chemical reactions slow and eventually stop. If body temperature is too high, chemical reactions speed up and body proteins lose their normal shape, resulting in loss of function.
- 46) Physiology
- 47) B
- 48) D
- 49) The walls of the abdominal cavity are formed only by trunk muscles and are not reinforced by bone. The pelvic organs receive a somewhat greater degree of protection from the bony pelvis.
- 50) proximal
- 51) water
- 52) Homeostatic imbalances increase our risk for illness and produce the changes we associate with aging.
- 53) olecranal
- 54) metabolism
- 55) tissues
- 56) D
- 57) calcaneal
- 58) Anatomical terms are precise words that have limited usage, which prevents confusion when describing the location of body parts.
- 59) middle ear
- 60) B
- 61) A
- 62) homeostasis
- 63) orbital
- 64) positive feedback
- 65) E
- 66) visceral
- 67) Larger structures of the body that can be seen with the naked eye.
- 68) negative
- 69) They act to reduce friction and allow the organs to slide across cavity walls.
- 70) The body is erect, arms hanging at the sides, palms forward, and thumbs pointed away from the midline.
- 71) C
- 72) afferent pathway
- 73) The statement is backwards—the higher we go, the less atmospheric pressure, therefore less oxygen.
- 74) A
- 75) The goal is to prevent sudden severe changes within the body.
- 76) What a structure can do depends on its specific form, or "structure determines function."
- 77) Yes, carbon dioxide is a metabolic waste the lungs excrete.
- 78) Renal
- 79) pelvic
- 80) respiratory system
- 81) TRUE
- 82) FALSE
- 83) TRUE
- 84) TRUE
- 85) TRUE
- 86) TRUE
- 87) TRUE

Answer Key
Testname: C1

- 88) FALSE
- 89) TRUE
- 90) TRUE
- 91) TRUE
- 92) FALSE
- 93) FALSE
- 94) A
- 95) A
- 96) A
- 97) A
- 98) A
- 99) A
- 100) B
- 101) A
- 102) A
- 103) A
- 104) A
- 105) A
- 106) A
- 107) A
- 108) A
- 109) A
- 110) A
- 111) A
- 112) A
- 113) A
- 114) B
- 115) A
- 116) A
- 117) B
- 118) A
- 119) A
- 120) A
- 121) A
- 122) A
- 123) A
- 124) A
- 125) A
- 126) A cross section or a transverse section.
- 127) The wound is located on the outer side of the leg.
- 128) The abdominal organs are the least protected in the body because they are not surrounded by a bony covering such as the ribs, pelvis, or cranium.
- 129) The pleural space contains a small amount of fluid that acts as a lubricant, allowing the pleurae to slide smoothly over each other as the lungs expand and contract. Pleurisy is an inflammation of the parietal pleura of the lungs. When inflammation occurs in the pleural space, the pleurae do not slide smoothly and this causes severe pain.
- 130) Positive feedback loops are common in pathophysiological perpetuation of disease. For example, arteriosclerotic hypertension results in positive feedback mechanisms that enhance and propagate the initial step in the chain of events, which is hypertension.
- 131) As we age, our body's control systems become less efficient. As a result, our internal environment becomes less and less stable.