

Exam

Name_____

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

1) Which of the following organs is located between the peritoneum and the body wall? 1) _____

- A) large intestine
- B) urinary bladder
- C) spleen
- D) stomach
- E) kidney

Answer: E

Explanation: A)
B)
C)
D)
E)

2) An anatomical term that means the same as "ventral" is 2) _____

- A) anterior.
- B) superior.
- C) posterior.
- D) inferior.
- E) abdominal.

Answer: A

Explanation: A)
B)
C)
D)
E)

3) An example of a receptor in a negative feedback loop controlling body temperature would be 3) _____

- A) temperature sensors on the skin that detect a stimulus.
- B) sweat glands that act like effectors.
- C) effectors that cause blood vessels to dilate.
- D) regulatory centers that send commands to an effector.
- E) sweat glands that increase secretion.

Answer: A

Explanation: A)
B)
C)
D)
E)

4) The muscle known as the diaphragm separates the _____ from the _____.

4) _____

- A) pericardial sac; pericardial cavity
- B) pericardial cavity; pleural cavity
- C) abdominal cavity; pelvic cavity
- D) thoracic cavity; abdominopelvic cavity
- E) pleural cavity; mediastinum

Answer: D

Explanation: A)
B)
C)
D)
E)

5) What is able to bind to a receptor?

5) _____

- A) water
- B) any chemical
- C) the nearest chemical
- D) the chemical of the proper structure
- E) carbon dioxide

Answer: D

Explanation: A)
B)
C)
D)
E)

6) When homeostatic mechanisms fail, an individual will experience the symptoms of

6) _____

- A) positive feedback.
- B) negative feedback.
- C) illness or disease.
- D) homeostasis.

Answer: C

Explanation: A)
B)
C)
D)

7) A midsagittal section would pass through the

7) _____

- A) kidney.
- B) lung.
- C) heart.
- D) leg.
- E) spleen.

Answer: C

Explanation: A)
B)
C)
D)
E)

- 8) A cell or organ that responds to commands of the control center in negative feedback is termed a(n) 8) _____
- A) effector.
 - B) receptor.
 - C) stimulus.
 - D) thermoregulator.
 - E) control center (integration center).

Answer: A

Explanation: A)
B)
C)
D)
E)

- 9) Eponyms, or commemorative names, were anatomical structures commonly named after 9) _____
- A) religious leaders of the time.
 - B) the discoverers.
 - C) tools used in dissection.
 - D) political leaders of the time.
 - E) those that funded the research.

Answer: B

Explanation: A)
B)
C)
D)
E)

- 10) A person lying face down is in the _____ position. 10) _____
- A) prone
 - B) anterior
 - C) posterior
 - D) supine
 - E) anatomical

Answer: A

Explanation: A)
B)
C)
D)
E)

- 11) The urinary bladder is found in the _____ quadrant and the _____ quadrant. 11) _____
- A) left upper; left lower
 - B) right lower; left lower
 - C) right upper; right lower
 - D) right upper; left lower

Answer: B

Explanation: A)
B)
C)
D)

- 12) In general, the nervous system does each of the following except
- A) directs long-term responses to change.
 - B) helps to maintain homeostasis.
 - C) responds rapidly to change and directs very specific responses.
 - D) directs very specific responses.
 - E) responds rapidly to change.

12) _____

Answer: A

Explanation: A)
B)
C)
D)
E)

- 13) Which organ system removes carbon dioxide from the bloodstream?
- A) respiratory
 - B) lymphatic
 - C) endocrine
 - D) cardiovascular
 - E) digestive

13) _____

Answer: A

Explanation: A)
B)
C)
D)
E)

- 14) The chin is _____ to the nose.

A) superior B) medial C) anterior D) posterior E) inferior

14) _____

Answer: E

Explanation: A)
B)
C)
D)
E)

- 15) Which of the following regions corresponds to the buttocks?

A) gluteal B) pelvic C) thoracic D) cephalic E) lumbar

15) _____

Answer: A

Explanation: A)
B)
C)
D)
E)

16) Which plane divides the body into right and left parts?

16) _____

- A) transverse
- B) orthogonal
- C) sagittal
- D) frontal
- E) proximal

Answer: C

Explanation: A)
B)
C)
D)
E)

17) The right pleural cavity contains the

17) _____

- A) left lung.
- B) heart.
- C) left lung and right lung.
- D) right lung.
- E) trachea.

Answer: D

Explanation: A)
B)
C)
D)
E)

18) Which organ system provides support, protection of soft tissue, mineral storage, and blood formation?

18) _____

- A) integumentary
- B) endocrine
- C) muscular
- D) nervous
- E) skeletal

Answer: E

Explanation: A)
B)
C)
D)
E)

19) The central principle of physiology is

19) _____

- A) reflexes.
- B) nutrition.
- C) stimulation.
- D) homeostasis.
- E) temperature regulation.

Answer: D

Explanation: A)
B)
C)
D)
E)

20) Much of the early history in anatomy is tied to what country?

20) _____

- A) Italy
- B) Spain
- C) France
- D) United States
- E) England

Answer: A

Explanation: A)
B)
C)
D)
E)

21) What type of feedback exaggerates the effects of variations from normal?

21) _____

- A) depressing
- B) elevating
- C) neutral
- D) positive
- E) negative

Answer: D

Explanation: A)
B)
C)
D)
E)

22) While standing in the anatomical position,

22) _____

- A) front refers to posterior.
- B) front refers to inferior.
- C) back refers to dorsal.
- D) back refers to anterior.
- E) back refers to superior.

Answer: C

Explanation: A)
B)
C)
D)
E)

23) While standing erect, the direction of caudal is

23) _____

- A) downward.
- B) upward.
- C) medially.
- D) laterally.
- E) None of the answers is correct.

Answer: A

Explanation: A)
B)
C)
D)
E)

24) Gas exchange is to the respiratory system as absorption of nutrients is to the _____ system(s). 24) _____

- A) urinary
- B) digestive
- C) cardiovascular
- D) lymphatic
- E) urinary and cardiovascular

Answer: B

Explanation: A)
B)
C)
D)
E)

25) The wrist is _____ to the elbow. 25) _____

- A) lateral
- B) medial
- C) proximal
- D) horizontal
- E) distal

Answer: E

Explanation: A)
B)
C)
D)
E)

26) The two major divisions of the ventral body cavity are the 26) _____

- A) cranial and sacral.
- B) pelvic and thoracic.
- C) lateral and medial.
- D) dorsal and ventral.
- E) thoracic and abdominopelvic.

Answer: E

Explanation: A)
B)
C)
D)
E)

27) If a response increases a disturbance, the system is classified as a _____ feedback system. 27) _____

- A) neutral
- B) deficit
- C) negative
- D) positive
- E) polarized

Answer: D

Explanation: A)
B)
C)
D)
E)

28) Which of the following is arranged in correct order from the most complex to the simplest? 28) _____

- A) tissue, cellular, molecular, organ, system, organism
- B) organism, system, organ, tissue, cellular, molecular
- C) cellular, tissue, molecular, system, organ, organism
- D) organ, organism, molecular, cellular, tissue, system
- E) molecular, cellular, tissue, organ, system, organism

Answer: B

Explanation: A)
B)
C)
D)
E)

29) Which of the following organs is not contained within the abdominal cavity? 29) _____

- A) pancreas
- B) ovary
- C) spleen
- D) stomach
- E) small intestine

Answer: B

Explanation: A)
B)
C)
D)
E)

30) The quadrants of the abdominopelvic region include all of the following except the 30) _____

- A) right upper quadrant (RUQ).
- B) pelvic quadrant.
- C) left upper quadrant (LUQ).
- D) left lower quadrant (LLQ).
- E) right lower quadrant (RLQ).

Answer: B

Explanation: A)
B)
C)
D)
E)

31) Which organ system transports nutrients, metabolic wastes, gases, and defense cells? 31) _____

- A) cardiovascular
- B) urinary
- C) respiratory
- D) digestive
- E) muscular

Answer: A

Explanation: A)
B)
C)
D)
E)

- 32) The heart is _____ to the lungs. 32) _____
A) distal B) posterior C) medial D) proximal E) lateral
Answer: C
Explanation: A)
B)
C)
D)
E)
- 33) Which one of the following is not a characteristic of the endocrine system? 33) _____
A) It produces an effect that involves several organs or tissues at the same time.
B) It releases chemicals that affect other organs or tissues.
C) It produces a more rapid response than the nervous system.
D) It is important in regulating organs and tissues.
E) It produces effects that last for days or longer.
Answer: C
Explanation: A)
B)
C)
D)
E)
- 34) The common name for the pollex is the 34) _____
A) armpit. B) groin. C) thumb. D) foot. E) hand.
Answer: C
Explanation: A)
B)
C)
D)
E)
- 35) Which of the following is not considered an abdominopelvic region? 35) _____
A) left lumbar
B) right inguinal region
C) left hypochondriac
D) right hypochondriac
E) upper right
Answer: E
Explanation: A)
B)
C)
D)
E)

36) To what level of organization does a protein belong?

36) _____

- A) organ level
- B) organ system level
- C) tissue level
- D) chemical level
- E) cellular level

Answer: D

Explanation: A)
B)
C)
D)
E)

37) Which of the following is not a characteristic of life?

37) _____

- A) excretion
- B) decomposition
- C) responsiveness
- D) growth
- E) respiration

Answer: B

Explanation: A)
B)
C)
D)
E)

38) The common name for the patellar region is the

38) _____

- A) neck
- B) kneecap.
- C) hand.
- D) breast.
- E) ear.

Answer: B

Explanation: A)
B)
C)
D)
E)

39) Directing long-term changes in the activities of other organ systems is the major function of the _____ system.

39) _____

- A) respiratory
- B) cardiovascular
- C) lymphatic
- D) endocrine
- E) digestive

Answer: D

Explanation: A)
B)
C)
D)
E)

40) Anatomy is to _____ as physiology is to _____.

40) _____

- A) structure; function
- B) structure; form
- C) function; form
- D) growth; form
- E) form; structure

Answer: A

Explanation: A)
B)
C)
D)
E)

41) When body temperature rises, a center in the brain initiates physiological changes to decrease the body temperature. This is an example of

41) _____

- A) diagnostic regulation.
- B) fever.
- C) positive feedback.
- D) negative feedback.
- E) nonhomeostatic regulation.

Answer: D

Explanation: A)
B)
C)
D)
E)

42) The maintenance of a constant internal environment in an organism is termed

42) _____

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

Answer: D

Explanation: A)
B)
C)
D)
E)

43) The mediastinum

43) _____

- A) contains both the pleural and pericardial cavities.
- B) contains the pleural cavities.
- C) separates the pleural cavities.
- D) separates the pleural cavities, and contains the pericardial cavity.
- E) contains the pericardial cavity.

Answer: D

Explanation: A)
B)
C)
D)
E)

- 44) The four major tissue types include each of the following except _____ tissue. 44) _____
A) nervous B) connective C) glandular D) epithelial E) muscular
Answer: C
Explanation: A)
B)
C)
D)
E)
- 45) A chemical imbalance in the blood can cause the heart to stop pumping blood, which in turn will cause other tissues and organs to cease functioning. This observation supports the view that 45) _____
A) chemical molecules make up cells.
B) all levels of organization within an organism are interdependent.
C) congenital defects can be life-threatening.
D) blood has magical properties.
E) all organisms are composed of cells.
Answer: B
Explanation: A)
B)
C)
D)
E)
- 46) The integrating center for the negative feedback loop that regulates body temperature is the 46) _____
A) positive feedback center.
B) skin.
C) temperature receptor.
D) thermostat.
E) brain.
Answer: E
Explanation: A)
B)
C)
D)
E)
- 47) The liver is primarily located in the _____ quadrant. 47) _____
A) left lower
B) right lower
C) hepatic
D) right upper
E) left upper
Answer: D
Explanation: A)
B)
C)
D)
E)

48) A person facing forward with hands at the sides and palms facing forward is in the _____ position.

48) _____

- A) sagittal
- B) prone
- C) anatomical
- D) supine
- E) frontal

Answer: C

Explanation: A)
B)
C)
D)
E)

49) Which organ system functions in defense against infection and disease?

49) _____

- A) digestive
- B) lymphatic
- C) nervous
- D) cardiovascular
- E) endocrine

Answer: B

Explanation: A)
B)
C)
D)
E)

50) What is the smallest living level of organization?

50) _____

- A) chemical level
- B) tissue level
- C) cellular level
- D) organ system level
- E) organ level

Answer: C

Explanation: A)
B)
C)
D)
E)

- 51) Because the anatomy and physiology of the body's structures are interrelated, it is often said that "form determines _____.
A) biology
B) structure
C) function
D) anatomy
E) physiology
Answer: C
Explanation: A)
B)
C)
D)
E)
- 52) The common term for the buccal region is the
A) buttock. B) arm. C) cheek. D) foot. E) head.
Answer: C
Explanation: A)
B)
C)
D)
E)
- 53) A person is lying on the bed gazing at the ceiling. She is in the _____ position.
A) dorsal
B) supine
C) anatomical
D) prone
E) caudal
Answer: B
Explanation: A)
B)
C)
D)
E)
- 54) The serous membrane covering the stomach and most of the intestines is called the
A) peritoneum.
B) abdomen.
C) mediastinum.
D) pericardium.
E) pleura.
Answer: A
Explanation: A)
B)
C)
D)
E)

55) Which of the following terms refers to the foot?

55) _____

- A) cervical
- B) pedal
- C) brachial
- D) femoral
- E) antebrachial

Answer: B

Explanation: A)
B)
C)
D)
E)

56) Protection from environmental hazards is a function of the _____ system.

56) _____

- A) endocrine
- B) skeletal and muscular
- C) skeletal
- D) integumentary
- E) muscular

Answer: D

Explanation: A)
B)
C)
D)
E)

57) The common term for the carpal region is the

57) _____

- A) wrist.
- B) leg.
- C) skull.
- D) ankle.
- E) chest.

Answer: A

Explanation: A)
B)
C)
D)
E)

58) The ability of an organism to change behaviors, abilities, or structures to survive is called

58) _____

- A) responsiveness.
- B) adaptability.
- C) excretion.
- D) respiration.
- E) circulation.

Answer: B

Explanation: A)
B)
C)
D)
E)

59) The branch of biological science that deals with the study of how living organisms perform their vital functions is called

59) _____

- A) biology.
- B) anatomy.
- C) homeostasis.
- D) disease.
- E) physiology.

Answer: E

Explanation: A)
B)
C)
D)
E)

60) Homeostatic regulation usually involves a(n) _____ that detects a particular stimulus, and a(n) _____ that responds to the stimulus by communicating with a(n) _____ whose activity has an effect on the same stimulus.

60) _____

- A) effector; control center (integrating center); receptor
- B) control center (integrating center); receptor; effector
- C) effector; receptor; control center (integrating center)
- D) receptor; control center (integrating center); effector
- E) receptor; effector; control center (integrating center)

Answer: D

Explanation: A)
B)
C)
D)
E)

61) Terms of anatomical direction are used to describe

61) _____

- A) a supine position.
- B) one body part in relation to another.
- C) the nervous system.
- D) living matter.
- E) surgical procedures.

Answer: B

Explanation: A)
B)
C)
D)
E)

62) The thoracic cavity contains the

62) _____

- A) pericardial cavity.
- B) pericardial and pleural cavities.
- C) coelom.
- D) pleural cavities.
- E) pelvic cavity.

Answer: B

Explanation: A)
B)
C)
D)
E)

63) The tendency for physiological systems to stabilize internal conditions is called

63) _____

- A) biology.
- B) responsiveness.
- C) adaptability.
- D) homeostasis.
- E) disease.

Answer: D

Explanation: A)
B)
C)
D)
E)

64) The branch of biological science that studies the external and internal structure of the body and the physical relationship among body parts is called

64) _____

- A) physiology.
- B) disease.
- C) anatomy.
- D) homeostasis.
- E) biology.

Answer: C

Explanation: A)
B)
C)
D)
E)

65) Which of the following structures is located within the mediastinum?

65) _____

- A) small intestine
- B) spleen
- C) pericardial sac
- D) lung
- E) stomach

Answer: C

Explanation: A)
B)
C)
D)
E)

66) Elimination of excess water, salts, and waste products are functions of the _____ system.

66) _____

- A) endocrine
- B) digestive
- C) lymphatic
- D) urinary
- E) respiratory

Answer: D

Explanation: A)
B)
C)
D)
E)

67) Visceral pericardium is located

67) _____

- A) on the lung itself.
- B) on the heart itself.
- C) on the small intestine itself.
- D) lining the peritoneal cavity.
- E) lining the pleural cavity.

Answer: B

Explanation: A)
B)
C)
D)
E)

68) _____ is the study of life.

68) _____

- A) Cytology
- B) Embryology
- C) Biology
- D) Anatomy
- E) Physiology

Answer: C

Explanation: A)
B)
C)
D)
E)

69) A cut parallel to the midsagittal plane would produce a _____ section.

69) _____

- A) coronal
- B) superior
- C) frontal
- D) parasagittal
- E) transverse

Answer: D

Explanation: A)
B)
C)
D)
E)

70) If a response decreases a disturbance, the system is classified as a _____ feedback system. 70) _____
A) deficit B) positive C) polarized D) neutral E) negative

Answer: E

Explanation: A)
 B)
 C)
 D)
 E)

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

71) Name the two upper abdominal quadrants and list the organs that lie in each.

Answer: right upper quadrant (RUQ): right lobe of liver, gallbladder, right kidney, portions of stomach, large and small intestines; left upper quadrant (LUQ): left lobe of liver, stomach, pancreas, left kidney, spleen, portions of large intestine

72) What is homeostatic regulation, and what is its physiological importance?

Answer: Homeostatic regulation refers to adjustments in physiological systems that are responsible for the preservation of a constant internal environment. This provides a favorable environment for the body's cells.

73) Name two organs found in the thoracic cavity.

Answer: lungs, heart, trachea, esophagus, thymus, major blood vessels connected to the heart

74) Give an example of an abnormality or problem at one level of organization, and explain how it affects other levels of organization.

Answer: The levels of organization are dependent upon one another. Beginning with the chemical level, if the incorrect atom is put into a protein, then the protein does not function properly. Because this protein is ultimately part of a cell, or the cell's extracellular matrix, the tissue will not work correctly. It is possible that the type of tissue containing this protein is found in an organ, and possibly in many organs, therefore affecting multiple organ systems. Cystic fibrosis is a great example of a faulting protein that affects multiple organ systems.

Answer Key

Testname: C1

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

Answer Key

Testname: C1

- 51) C
- 52) C
- 53) B
- 54) A
- 55) B
- 56) D
- 57) A
- 58) B
- 59) E
- 60) D
- 61) B
- 62) B
- 63) D
- 64) C
- 65) C
- 66) D
- 67) B
- 68) C
- 69) D
- 70) E
- 71) right upper quadrant (RUQ): right lobe of liver, gallbladder, right kidney, portions of stomach, large and small intestines; left upper quadrant (LUQ): left lobe of liver, stomach, pancreas, left kidney, spleen, portions of large intestine
- 72) Homeostatic regulation refers to adjustments in physiological systems that are responsible for the preservation of a constant internal environment. This provides a favorable environment for the body's cells.
- 73) lungs, heart, trachea, esophagus, thymus, major blood vessels connected to the heart
- 74) The levels of organization are dependent upon one another. Beginning with the chemical level, if the incorrect atom is put into a protein, then the protein does not function properly. Because this protein is ultimately part of a cell, or the cell's extracellular matrix, the tissue will not work correctly. It is possible that the type of tissue containing this protein is found in an organ, and possibly in many organs, therefore affecting multiple organ systems. Cystic fibrosis is a great example of a faulting protein that affects multiple organ systems.