

Exam

Name _____

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

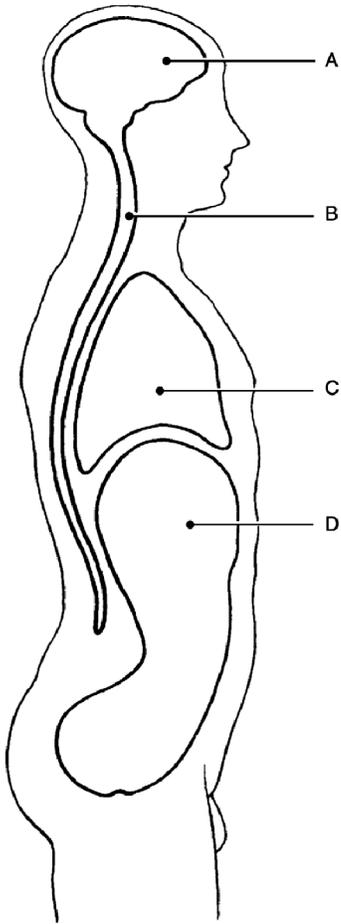


Figure 1.1

Using Figure 1.1, match the following cavities:

1) Thoracic cavity.

1) _____

2) Cranial cavity.

2) _____

3) Abdominal cavity.

3) _____

4) Vertebral cavity.

4) _____

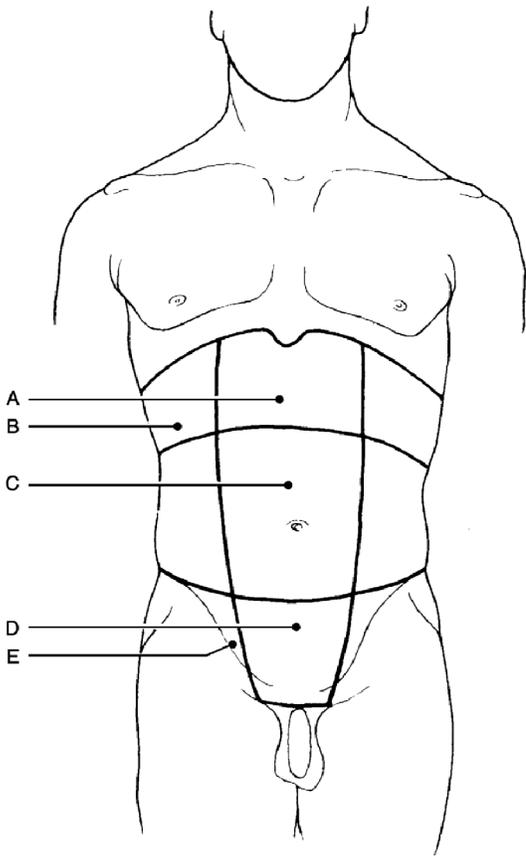


Figure 1.2

Using Figure 1.2, match the following regions:

5) Umbilical region.

5) _____

6) Right hypochondriac.

6) _____

7) Hypogastric (pubic) region.

7) _____

8) Epigastric region.

8) _____

9) Right iliac (inguinal) region.

9) _____

MATCHING. Choose the item in column 2 that best matches each item in column 1.

Match the following systems to their functions:

10) Directly causes mechanical motion.

A) Muscular

10) _____

- | | | |
|--|------------------|-----------|
| 11) Responds to environmental changes by transmitting electrical impulses. | A) Skeletal | 11) _____ |
| | B) Integumentary | |
| 12) Provides support and levers for muscles to work on. | C) Nervous | 12) _____ |
| 13) Protects underlying organs from mechanical damage and synthesizes vitamin D. | | 13) _____ |

Match the following systems to their functions:

- | | | |
|--|-------------------|-----------|
| 14) Controls the body with chemical molecules called hormones. | A) Lymphatic | 14) _____ |
| | B) Endocrine | |
| 15) Delivers oxygen and nutrients to the tissues. | C) Immune | 15) _____ |
| | D) Cardiovascular | |
| 16) Produces antibodies that neutralize foreign substances. | | 16) _____ |
| 17) Removes and filters excess fluid from tissues. | | 17) _____ |

Match the following examples of feedback mechanisms:

- | | | |
|--------------------------|----------------------|-----------|
| 18) Blood glucose levels | A) Positive feedback | 18) _____ |
| | B) Negative feedback | |
| 19) Blood pressure | | 19) _____ |
| 20) Blood clotting | | 20) _____ |
| 21) Delivering a baby | | 21) _____ |

Match the following systems and organs:

- | | | |
|--|-------------------|-----------|
| 22) Arteries, veins, heart. | A) Cardiovascular | 22) _____ |
| | B) Endocrine | |
| 23) Trachea, bronchi, alveoli. | C) Digestive | 23) _____ |
| | D) Respiratory | |
| 24) Adrenal glands, pancreas, pituitary. | | 24) _____ |
| 25) Esophagus, large intestine, rectum. | E) Urinary | 25) _____ |
| 26) Kidneys, bladder, ureters. | | 26) _____ |

Match the following cavities and organs:

- | | | |
|--------------|-------------------|-----------|
| 27) Stomach. | A) Cranial | 27) _____ |
| 28) Heart. | B) Abdominopelvic | 28) _____ |
| 29) Uterus. | C) Thoracic | 29) _____ |
| 30) Brain. | | 30) _____ |
| 31) Lungs. | | 31) _____ |

Match the following regional terms and common terms:

- | | | |
|-----------------------------|-------------|-----------|
| 32) Arm. | A) Thoracic | 32) _____ |
| 33) Buttock. | B) Cephalic | 33) _____ |
| 34) Head. | C) Brachial | 34) _____ |
| 35) Knee (anterior aspect). | D) Gluteal | 35) _____ |
| 36) Chest. | E) Patellar | 36) _____ |

Match the regional/directional terms and examples:

- | | | |
|--|-------------|-----------|
| 37) The bridge of the nose is _____ to the left eye. | A) Medial | 37) _____ |
| 38) The upper arm is _____ to the forearm. | B) Anterior | 38) _____ |
| 39) The heart is _____ to the stomach. | C) Proximal | 39) _____ |
| 40) The fingers are _____ to the wrist. | D) Superior | 40) _____ |
| 41) The stomach is _____ to the spine. | E) Distal | 41) _____ |

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

- | | |
|---|-----------|
| 42) Positive feedback mechanisms tend to increase the original stimulus. | 42) _____ |
| 43) Imaging is useful in discovering obstructed blood supplies in organs and tissues. | 43) _____ |
| 44) The anatomical position means the body is standing at attention with the palms facing forward and the thumbs pointing away from the body. | 44) _____ |
| 45) The elbow is proximal to the shoulder. | 45) _____ |
| 46) The serous membrane that lines the peritoneal cavity wall is called visceral peritoneum. | 46) _____ |

- 47) A major function of serous membranes is to decrease friction. 47) _____
- 48) The right hypochondriac region contains the majority of the stomach. 48) _____
- 49) Lungs carry out an excretory function. 49) _____
- 50) Embryology concerns the structural changes that occur in an individual from conception through old age. 50) _____
- 51) A tissue consists of groups of similar cells that have a common function. 51) _____
- 52) It is important for any organism to maintain its boundaries, so that its internal environment remains distinct from the external environment surrounding it. 52) _____
- 53) Without some sort of negative feedback mechanism, it would be impossible to keep our body chemistry in balance. 53) _____
- 54) Regardless of the variable being regulated, all homeostatic control mechanisms have at least three interdependent components. 54) _____
- 55) The epigastric region is located superior to the umbilical region. 55) _____

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

- 56) Histology would be best defined as a study of _____. 56) _____
 A) cells B) the gross structures of the body
 C) cell chemistry D) tissues
- 57) The study of the heart may incorporate many aspects of anatomy but as a whole you would say it is _____ anatomy. 57) _____
 A) microscopic B) developmental C) systemic D) gross
- 58) An increased rate of breathing as a result of an increased buildup of carbon dioxide in the bloodstream would be best described as an example of _____. 58) _____
 A) excretion of metabolic waste B) metabolism
 C) maintaining boundaries D) responsiveness
- 59) Average body temperature is _____ degrees centigrade. 59) _____
 A) 98 B) 37 C) 47 D) 68
- 60) If you consider your home air conditioner in terms of homeostasis, then the wall thermostat would be the _____. 60) _____
 A) effector B) control center C) receptor D) variable
- 61) What is the main, general purpose of negative feedback? 61) _____
 A) to keep the body's sugar high B) to regulate excretion
 C) to control all body system tissues D) to maintain homeostasis

- 62) What is the specific name for the hip region? 62) _____
 A) inguinal B) pedal C) manus D) coxal
- 63) An oblique cut is one that is cut _____. 63) _____
 A) perpendicular to vertical and horizontal
 B) vertical right and left
 C) horizontal right and left
 D) diagonally between the vertical and horizontal
- 64) The heart lies in the _____ cavity. 64) _____
 A) pericardial B) dorsal
 C) superior mediastinal D) pleural
- 65) The cavities housing the eyes are called _____ cavities. 65) _____
 A) cranial B) nasal C) frontal D) orbital
- 66) A structure that is composed of two or more tissues would be a(n) _____. 66) _____
 A) organ B) complex tissue C) complex cell D) organ system
- 67) _____ cavities are spaces within joints. 67) _____
 A) Synovial B) Orbital C) Nasal D) Oral
- 68) Which of the following would not be a functional characteristic of life? 68) _____
 A) maintenance of boundaries B) decay
 C) responsiveness to external stimuli D) movement
- 69) Which term means toward or at the back of the body, behind? 69) _____
 A) distal B) dorsal C) anterior D) lateral
- 70) The single most abundant chemical substance of the body, accounting for 60% to 80% of body weight, is _____. 70) _____
 A) protein B) water C) hydrogen D) oxygen
- 71) What is the posterior side of the patella called? 71) _____
 A) sural B) popliteal C) antecubital D) crural
- 72) Which of the following statements is true concerning feedback mechanisms? 72) _____
 A) Negative feedback mechanisms tend to increase the original stimulus.
 B) Negative feedback mechanisms work to prevent sudden severe changes within the body.
 C) Positive feedback mechanisms always result in excessive damage to the host.
 D) Blood glucose levels are regulated by positive feedback mechanisms.
- 73) The anatomical position is characterized by all of the following except _____. 73) _____
 A) palms turned posteriorly B) thumbs pointed laterally
 C) arms at sides D) body erect
- 74) A good example of a positive feedback mechanism would be _____. 74) _____
 A) regulating glucose levels in the blood B) enhancement of labor contractions
 C) blood calcium level regulation D) body temperature regulation

- 75) Which of the following describes a parasagittal plane? 75) _____
 A) a transverse cut just above the knees
 B) any cut dividing the body into anterior and posterior
 C) any sagittal plane except the median
 D) two cuts dividing the body into left and right halves
- 76) Which of the following organs or structures would be found in the left iliac region? 76) _____
 A) appendix B) stomach C) intestines D) liver
- 77) The parietal pleural would represent a serous membrane _____. 77) _____
 A) lining the abdominal cavity B) lining the thoracic cavity
 C) covering the heart D) covering individual lungs
- 78) Which one of the following systems responds to environmental stimuli? 78) _____
 A) immune B) lymphatic C) muscular D) nervous
- 79) Choose the anatomical topic and definition that is not correctly matched. 79) _____
 A) Embryology: study of the changes in an individual from conception to birth.
 B) Cytology: study of the structures in a particular region.
 C) Gross anatomy: study of structures visible to the eye.
 D) Microscopic anatomy: study of structures too small to be seen by the naked eye.
- 80) Homeostasis is the condition in which the body maintains _____. 80) _____
 A) a static state with no deviation from preset points
 B) the lowest possible energy usage
 C) a dynamic state within an unlimited range
 D) a relatively stable internal environment, within limits
- 81) In which cavities are the lungs located? 81) _____
 A) mediastinum, thoracic, and ventral B) pleural, dorsal, and abdominal
 C) pleural, ventral, and thoracic D) pericardial, ventral, and thoracic
- 82) Choose the following statement that is not completely correct regarding serous membranes. 82) _____
 A) Serosa are very thin, double-layered structures.
 B) Serous membranes secrete a watery lubricating fluid.
 C) Visceral pericardium covers the surface of the heart, and parietal pericardium lines the walls of the heart.
 D) Serous membranes are divided into parietal and visceral membranes with a potential space between the two.
- 83) Place the following in correct sequence from simplest to most complex: 83) _____
 1. molecules
 2. atoms
 3. tissues
 4. cells
 5. organ
 A) 1-2-3-4-5 B) 1-2-4-3-5 C) 2-1-3-4-5 D) 2-1-4-3-5

- 84) Which of the following imaging devices would best localize a tumor in a person's brain? 84) _____
 A) DSA B) MRI C) X ray D) PET
- 85) Which of these is not part of the dorsal cavity? 85) _____
 A) spinal cord B) thoracic cavity C) vertebral cavity D) cranial cavity
- 86) In which abdominopelvic cavity is the stomach located? 86) _____
 A) left upper B) right lower C) right upper D) left lower
- 87) Which of the following statements is the most correct regarding homeostatic imbalance? 87) _____
 A) Negative feedback mechanisms are functioning normally.
 B) It is considered the cause of most diseases.
 C) Positive feedback mechanisms are overwhelmed.
 D) The internal environment is becoming more stable.
- 88) Subdivisions of anatomy include which of the following? 88) _____
 A) gross, macroscopic, visual, and microscopic
 B) gross, regional, dissection, and surface
 C) gross, regional, systemic, and surface
 D) regional, surface, visual, and microscopic
- 89) The term pollex refers to the _____. 89) _____
 A) fingers B) calf C) thumb D) great toe
- 90) The dorsal body cavity is the site of which of the following? 90) _____
 A) brain B) intestines C) lungs D) liver
- 91) Select the most correct statement. 91) _____
 A) Organ systems operate independently of each other to maintain life.
 B) The immune system is closely associated with the lymphatic system.
 C) Organ systems can be composed of cells or tissues, but not both.
 D) The endocrine system is not a true structural organ system.
- 92) One of the functional characteristics of life is irritability. This refers to _____. 92) _____
 A) the necessity for all organisms to reproduce
 B) the nervous system causing all living things to sometimes experience anger
 C) indigestible food residues stimulating the excretory system
 D) sensing changes in the environment and then reacting or responding to them
- 93) Which of the following are survival needs of the body? 93) _____
 A) nutrients, water, growth, and reproduction
 B) nutrients, water, atmospheric pressure, and oxygen
 C) nutrients, water, movement, and reproduction
 D) water, atmospheric pressure, growth, and movement

- 94) The anatomical position is used _____. 94) _____
 A) rarely, because people don't usually assume this position
 B) only when a body is lying down
 C) as a standard reference point for directional terms regardless of the actual position of the body
 D) as the most comfortable way to stand when dissecting a specimen
- 95) What is a vertical section through the body, dividing it into left and right, called? 95) _____
 A) transverse B) regional C) frontal D) sagittal
- 96) What is a vertical section through the body, dividing it into anterior and posterior regions called? 96) _____
 A) median B) transverse C) sagittal D) frontal
- 97) Which body cavity protects the nervous system? 97) _____
 A) cranial B) thoracic C) vertebral D) dorsal
- 98) Which of the following describes the operation of the heart and blood vessels? 98) _____
 A) cardiovascular physiology B) systemic anatomy
 C) cardiovascular anatomy D) systemic physiology

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

- 99) Similar cells that have a common function are called _____. 99) _____
- 100) What does the "principle of complementarity of structures and function" mean? 100) _____
- 101) The term that describes the back of the elbow is _____. 101) _____
- 102) The term that describes the heel region is _____. 102) _____
- 103) The elbow is _____ to the wrist. 103) _____
- 104) The _____ cavity contains tiny bones that transmit sound vibrations to the organ of hearing in the inner ear. 104) _____
- 105) _____ is explained by chemical and physical principles and is concerned with the function of specific organs or organic systems. 105) _____
- 106) What is a dynamic equilibrium of your internal environment termed? 106) _____
- 107) Which cavity contains the bladder, some reproductive organs, and the rectum? 107) _____
- 108) What is the serous membrane that covers the intestines called? 108) _____
- 109) _____ physiology concerns urine production and kidney function. 109) _____
- 110) What broad term covers all chemical reactions that occur within the body cells? 110) _____

- 111) What is the function of the serous membranes? 111) _____
- 112) Fully describe the anatomical position for the human body. 112) _____
- 113) What does gross anatomy study? 113) _____
- 114) Can lungs carry out excretory functions? Explain your answer. 114) _____
- 115) The higher we go in the mountains, the greater the atmospheric pressure, which causes a loss of oxygen. Comment on this statement. 115) _____
- 116) Why is anatomical terminology necessary? 116) _____
- 117) The five cavities of the head are cranial, oral, nasal, middle ear, and _____. 117) _____
- 118) The ability to sense changes in the environment and respond to them is called _____. 118) _____
- 119) What is the single most abundant chemical substance in the body? 119) _____
- 120) Why must a normal body temperature be maintained in order for chemical reactions to be continued at life-sustaining rates? 120) _____
- 121) What is the pathway between the receptor and the control center in the reflex pathway called? 121) _____
- 122) What type of homeostatic feedback reflex is the withdrawal reflex? 122) _____
- 123) Why are the abdominopelvic cavity organs the most vulnerable in an automobile accident? 123) _____
- 124) What is the goal of all of the negative feedback mechanisms of the body? 124) _____
- 125) Which feedback mechanism causes the variable to deviate further and further from its original value or range? 125) _____
- 126) What can happen when the usual negative feedback mechanisms are overwhelmed and destructive positive feedback mechanisms take over? 126) _____
- 127) Which body system would be most affected by a lower than normal atmospheric pressure? 127) _____

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

- 128) A small family was traveling in its van and had a minor accident. The children in the back seats were wearing lap belts, but still sustained numerous bruises about the abdomen, and had some internal organ injuries. Why is this area more vulnerable to damage than others?

- 129) A surgeon removed a section of tissue along a transverse plane for microscopic examination. What two names would the section be called?
- 130) 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.
- 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.
- 132) The nurse charted: "Patient has an open wound located on lateral aspect of leg." Describe where the wound is located.
- 133) 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 Key

Testname: UNTITLED1

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

Answer Key

Testname: UNTITLED1

- 51) TRUE
- 52) TRUE
- 53) TRUE
- 54) TRUE
- 55) TRUE
- 56) D
- 57) D
- 58) A
- 59) B
- 60) B
- 61) D
- 62) D
- 63) D
- 64) A
- 65) D
- 66) A
- 67) A
- 68) B
- 69) B
- 70) B
- 71) B
- 72) B
- 73) A
- 74) B
- 75) C
- 76) C
- 77) B
- 78) D
- 79) B
- 80) D
- 81) C
- 82) C
- 83) D
- 84) B
- 85) B
- 86) A
- 87) B
- 88) C
- 89) C
- 90) A
- 91) B
- 92) D
- 93) B
- 94) C
- 95) D
- 96) D
- 97) D
- 98) C
- 99) tissues
- 100) What a structure can do depends on its specific form, or "structure determines function."

Answer Key

Testname: UNTITLED1

- 101) olecranal
- 102) calcaneal
- 103) proximal
- 104) middle ear
- 105) Physiology
- 106) homeostasis
- 107) pelvic
- 108) visceral
- 109) Renal
- 110) metabolism
- 111) They act to reduce friction and allow the organs to slide across cavity walls.
- 112) The body is erect, arms hanging at the sides, palms forward, and thumbs pointed away from the midline.
- 113) Larger structures of the body that can be seen with the naked eye.
- 114) Yes, carbon dioxide is a metabolic waste the lungs excrete.
- 115) The statement is backwards—the higher we go, the less atmospheric pressure, therefore less oxygen.
- 116) Anatomical terms are precise words that have limited usage, which prevents confusion when describing the location of body parts.
- 117) orbital
- 118) responsiveness or irritability
- 119) water
- 120) 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.
- 121) afferent pathway
- 122) negative
- 123) 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.
- 124) The goal is to prevent sudden severe changes within the body.
- 125) positive feedback
- 126) Homeostatic imbalances increase our risk for illness and produce the changes we associate with aging.
- 127) respiratory system
- 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) A cross section or a transverse section.
- 130) 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.
- 131) As we age, our body's control systems become less efficient. As a result, our internal environment becomes less and less stable.
- 132) The wound is located on the outer side of the leg.
- 133) 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.