

Human Anatomy, 9e, Global Edition (Marieb/Wilhelm/Mallatt)

Test Bank

Chapter 1 The Human Body: An Orientation

1.1 Multiple Choice Questions

1) The smallest living unit is

- A) a cell.
- B) an organ.
- C) a human being.
- D) a molecule.

Answer: A

Section: 1.1

Book LO: 1.3

Global LO: G2

Bloom's Level: Remembering/Understanding

2) Which branch of anatomy studies the structural changes that occur as one ages?

- A) developmental anatomy
- B) pathological anatomy
- C) regional anatomy
- D) surface anatomy

Answer: A

Section: 1.1

Book LO: 1.1

Global LO: G1

Bloom's Level: Remembering/Understanding

3) Morphology is

- A) a measuring technique
- B) the study of form
- C) an imaging technology
- D) the study of disease
- E) a type of microscopy

Answer: B

Section: 1.1

Book LO: 1.5

Global LO: G2

Bloom's Level: Remembering/Understanding

4) How many centimeters are there in a meter?

- A) 10
- B) 100
- C) 1,000
- D) 1,000,000

Answer: B

Section: 1.1

Book LO: 1.4

Global LO: G4

Bloom's Level: Applying/Analyzing

5) A histologist examines a specimen that has an epithelium overlying some smooth muscle. This specimen is part of

- A) a molecule.
- B) a cell.
- C) a tissue.
- D) an organ.

Answer: D

Section: 1.1

Book LO: 1.2

Global LO: G1

Bloom's Level: Remembering/Understanding

6) An example of a tissue in the body is

- A) the stomach.
- B) a muscle cell.
- C) epithelium.
- D) a macromolecule.

Answer: C

Section: 1.1

Book LO: 1.2

Global LO: G1

Bloom's Level: Remembering/Understanding

7) An example of an organ is

- A) a fat cell.
- B) the intestine.
- C) epithelium.
- D) the cardiovascular system (but not the circulatory system).

Answer: B

Section: 1.1

Book LO: 1.2

Global LO: G1

Bloom's Level: Remembering/Understanding

8) Which organ system consists of vessels that do not carry blood, but pick up fluids (and some cells) that are leaked from the blood?

- A) urinary
- B) endocrine
- C) integumentary
- D) lymphatic

Answer: D

Section: 1.1

Book LO: 1.3

Global LO: G7

Bloom's Level: Applying/Analyzing

9) Large molecules such as proteins are called

- A) cells.
- B) macromolecules.
- C) multi-atom units.
- D) cellular organelles.

Answer: B

Section: 1.1

Book LO: 1.5

Global LO: G1

Bloom's Level: Remembering/Understanding

10) Which organ system covers the external surface of the body, but not the internal surface of the mouth?

- A) lymphatic
- B) digestive
- C) integumentary
- D) cutaneous

Answer: C

Section: 1.1

Book LO: 1.3

Global LO: G2

Bloom's Level: Remembering/Understanding

11) Which organ system includes the spinal cord?

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

Answer: C

Section: 1.1

Book LO: 1.3

Global LO: G2

Bloom's Level: Remembering/Understanding

12) The elimination of nitrogenous wastes from body fluids is regulated by the _____ system.

- A) urinary
- B) endocrine
- C) integumentary
- D) lymphatic

Answer: A

Section: 1.1

Book LO: 1.3

Global LO: G2

Bloom's Level: Remembering/Understanding

13) The dimensions of cells and organelles would best be described using which units of measurement?

- A) mg
- B) cm
- C) μm
- D) m
- E) ml

Answer: C

Section: 1.1

Book LO: 1.4

Global LO: G4

Bloom's Level: Applying/Analyzing

14) Which organ system includes the pancreas, thymus, testes, and pituitary gland?

- A) integumentary
- B) endocrine
- C) reproductive
- D) lymphatic

Answer: B

Section: 1.1

Book LO: 1.3

Global LO: G7

Bloom's Level: Remembering/Understanding

15) The roots of anatomical terminology lie mainly in

- A) German and French.
- B) Latin and Greek.
- C) Esperanto.
- D) Russian and Old English.

Answer: B

Section: 1.1

Book LO: 1.5

Global LO: G1

Bloom's Level: Remembering/Understanding

16) Hormones are regulatory proteins that are secreted by the _____ system.

- A) urinary
- B) endocrine
- C) integumentary
- D) lymphatic

Answer: B

Section: 1.1

Book LO: 1.3

Global LO: G7

Bloom's Level: Remembering/Understanding

17) Which organ system keeps blood constantly supplied with oxygen, removes carbon dioxide, and contains many air tubes?

- A) urinary
- B) endocrine
- C) circulatory
- D) respiratory

Answer: D

Section: 1.1

Book LO: 1.3

Global LO: G7

Bloom's Level: Remembering/Understanding

18) The _____ cavity contains the heart and lungs.

- A) abdominopelvic
- B) dorsal
- C) thoracic
- D) lateral

Answer: C

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

19) A coronal section through the human body can

- A) pass through both the nose and the occipital region.
- B) pass through both ears.
- C) provide mirror right and left images.
- D) lie in a horizontal plane.

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

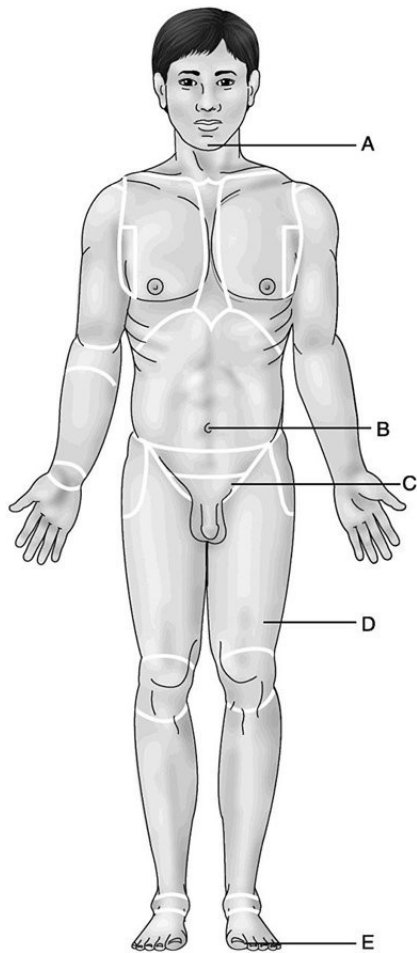


Figure 1.1

Use the diagram above to answer the following questions.

20) Which letter indicates the mental region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

21) Which letter indicates the umbilical region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

22) Which letter indicates the hallux?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: E

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

23) Which letter indicates the inguinal region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

24) Which letter indicates the femoral region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: D

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

25) Which structures are evidence of the vertebrate characteristic of segmentation?

- A) branches of the blood vessels
- B) multiple joints of fingers
- C) subdivisions of the gastrointestinal tract
- D) vertebral column

Answer: D

Section: 1.2

Book LO: 1.8

Global LO: G2

Bloom's Level: Remembering/Understanding

26) Which statement about visceral serosa is *false*?

- A) It clings to the surface of organs.
- B) It is continuous with the membrane that covers the outer body wall.
- C) It is deep to the parietal serosa.
- D) It lines the internal surface of hollow organs.

Answer: D

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

27) The buccal region is the

- A) cheeks.
- B) waist.
- C) calf of the leg.
- D) underside of the foot.

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

28) The popliteal region is

- A) the side of the leg.
- B) in the cervical region.
- C) the posterior surface of the knee.
- D) the inferior part of the gluteal region.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

- 29) The coxal region is
A) the same as the inguinal region.
B) the skin over the "tailbone."
C) the hip.
D) the posterior surface of the wrist.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

- 30) Which structure is located entirely within the right upper quadrant?
A) appendix
B) gallbladder
C) spleen
D) stomach

Answer: B

Section: 1.2

Book LO: 1.10

Global LO: G2

Bloom's Level: Remembering/Understanding

- 31) Which organ is *not* found in the ventral body cavity?
A) heart
B) liver
C) spinal cord
D) urinary bladder

Answer: C

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Applying/Analyzing

- 32) The ankle lies _____ to the thigh.
A) distal
B) proximal
C) lateral
D) inferior

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

33) The axillary artery is found in the region of the

- A) posterior surface of the knee.
- B) vertebral column.
- C) armpit.
- D) long axis of any limb.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

34) The extremities are the same as

- A) the ears.
- B) the fingers and toes.
- C) the limbs.
- D) all structures in the head.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

35) Which of the following pairs of organs/structures is located ipsilateral?

- A) cecum : sigmoid colon
- B) descending colon : spleen
- C) mouth : navel
- D) right lung : left lung

Answer: B

Section: 1.2

Book LO: 1.10

Global LO: G2

Bloom's Level: Applying/Analyzing

36) A physician viewing an injury to the back would look at the patient's _____ side.

- A) lateral
- B) posterior
- C) cranial
- D) ventral

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

37) The _____ body cavity contains the brain.

- A) dorsal
- B) ventral
- C) serous
- D) lateral

Answer: A

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

38) As an anatomical region, *lumbar* refers to

- A) the infero-medial aspect of the back.
- B) part of the lower limb.
- C) the wrist.
- D) the breast.

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

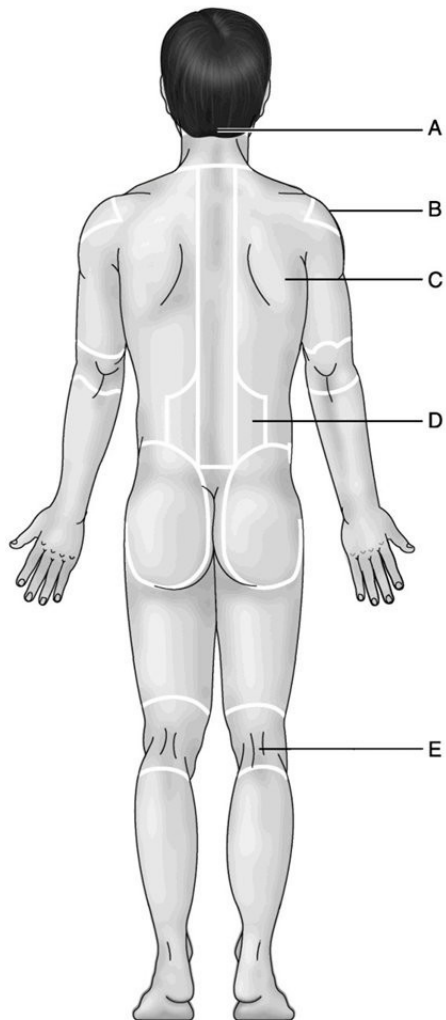


Figure 1.2

Use the diagram above to answer the following questions.

39) Which letter indicates the lumbar region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: D

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

40) Which letter indicates the acromial region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

41) Which letter indicates the scapular region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

42) Which letter indicates the popliteal region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: E

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

43) Which letter indicates the occipital region?

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

44) The chest is _____ to the abdomen.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

45) The sternal region is _____ to the scapular region.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

46) Which of these terms refers to the head?

- A) cranial
- B) caudal
- C) medial
- D) frontal
- E) sacral

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

47) The brain is _____ to the skull.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: E

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

48) The thumb is _____ to the index finger.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

49) Muscles are _____ to the skin.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: E

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

50) The axillary region is _____ to the sternum.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

51) The lip is _____ to the chin.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

52) The eye is _____ to the occipital region.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

53) The gluteal region is _____ to the popliteal region.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: A

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

54) The femoral region is _____ to the plantar region.

- A) superficial
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: D

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

55) The heart is _____ to the sternum.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: E

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

56) The pubic area is _____ to the gluteal region.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

57) The perineal region is the

- A) side of the leg.
- B) region between the external genitals and the anus.
- C) point of the shoulder.
- D) superior part of the gluteal region.

Answer: B

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

58) Which structure is *not* present in the mediastinum?

- A) esophagus
- B) heart
- C) lung
- D) trachea

Answer: C

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

59) A frontal plane is the same as a _____ plane.

- A) midsagittal
- B) transverse
- C) coronal
- D) sagittal

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

60) Another name for the midsagittal plane is

- A) parasagittal.
- B) oblique.
- C) coronal.
- D) median.

Answer: D

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

61) The umbilical region is _____ to the lumbar region.

- A) superior
- B) lateral
- C) anterior
- D) proximal
- E) deep

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Applying/Analyzing

62) The cervical region is the

- A) thigh.
- B) calf.
- C) neck.
- D) head.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

63) What is the function of serous membranes?

- A) They act like wrapping paper to hold visceral organs together.
- B) They contain gland cells that secrete mucus.
- C) They halt the spread of infection.
- D) They reduce friction so that viscera move freely.

Answer: D

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

64) The dorsal hollow nerve cord

- A) develops into the brain and spinal cord.
- B) is a primitive supporting rod.
- C) contains the notochord.
- D) is the same as the human backbone.

Answer: A

Section: 1.2

Book LO: 1.8

Global LO: G1

Bloom's Level: Remembering/Understanding

65) Which statement concerning the anatomical position is *false*?

- A) The palms face anteriorly.
- B) The toes point anteriorly, but the fingers point inferiorly.
- C) The knees, elbow, and neck are straight (not bent).
- D) The person is lying down, as straight as possible.

Answer: D

Section: 1.2

Book LO: 1.6

Global LO: G2

Bloom's Level: Remembering/Understanding

66) Bilateral symmetry can apply to objects as well as to animal bodies. Which of the following capital letters of the alphabet is *not* bilaterally symmetrical?

- A) A
- B) M
- C) L
- D) O

Answer: C

Section: 1.2

Book LO: 1.8

Global LO: G2

Bloom's Level: Remembering/Understanding

67) Which structure is *not* covered by visceral serosa?

- A) lungs
- B) ribs
- C) stomach
- D) uterus

Answer: B

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

68) The femoral region is the

- A) buttocks.
- B) hip.
- C) thigh.
- D) toes.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

69) The inguinal region lies

- A) anterior to the elbow joint.
- B) on the anterior neck.
- C) where the thigh joins the trunk.
- D) on the external genitals.

Answer: C

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

70) What point or structure in the body is located farthest laterally? (*Hint: Questions always refer to the body in the anatomical position.*)

- A) the coxal region
- B) ear
- C) little toe
- D) tip of thumb

Answer: D

Section: 1.2

Book LO: 1.6

Global LO: G2

Bloom's Level: Applying/Analyzing

71) Although transmission electron microscopy is usually used for high-magnification viewing, it is certainly possible to use it at low magnification as well. That is, one can produce similar micrographs of tissues taken by light microscopy and electron microscopy at the same magnification. Even at the same magnification, however, you can easily tell the two kinds of micrographs apart. How?

- A) The image in the electron micrograph is still sharper.
- B) Tissue viewed by electron microscopy is colored, whereas light micrographs are always black and white (and shades of gray).
- C) Tissue for light microscopy cannot be fixed (no fixation).
- D) Tissue for electron microscopy cannot be sectioned.

Answer: A

Section: 1.3

Book LO: 1.12

Global LO: G2

Bloom's Level: Remembering/Understanding

72) During the process of _____, noncellular artifacts can be introduced into histology samples.

- A) time
- B) observation
- C) staining
- D) photography

Answer: C

Section: 1.3

Book LO: 1.11

Global LO: G1

Bloom's Level: Remembering/Understanding

- 73) The main purpose of fixation is
A) to preserve the tissue.
B) to mend breaks in tissue sections.
C) to make an organ easier to section.
D) to stick tissue sections to a glass slide.

Answer: A

Section: 1.3

Book LO: 1.11

Global LO: G1

Bloom's Level: Remembering/Understanding

- 74) The "CT" in "CT scanning" stands for
A) cut transversely.
B) Charles Thorgaard, the inventor's name.
C) correlated thickness.
D) computed tomography.

Answer: D

Section: 1.4

Book LO: 1.13

Global LO: G1

Bloom's Level: Remembering/Understanding

- 75) What is the main advantage of MRI as a medical imaging technique?
A) It is safe.
B) The patient feels less pain during the procedure than with any other imaging technique.
C) It is very inexpensive.
D) It shows soft tissues very clearly.

Answer: D

Section: 1.4

Book LO: 1.13

Global LO: G2

Bloom's Level: Remembering/Understanding

1.2 True/False Questions

1) Pathological anatomy deals with structural changes caused by disease.

Answer: TRUE

Section: 1.1

Book LO: 1.1

Global LO: G1

Bloom's Level: Remembering/Understanding

2) Most adults are between 1.5 and 2 meters tall.

Answer: TRUE

Section: 1.1

Book LO: 1.4

Global LO: G1

Bloom's Level: Applying/Analyzing

3) All vertebrate embryos have a dorsal hollow nerve cord.

Answer: TRUE

Section: 1.2

Book LO: 1.8

Global LO: G2

Bloom's Level: Remembering/Understanding

4) Serous cavities include the pleural cavity.

Answer: TRUE

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

5) Serous cavities contain air.

Answer: FALSE

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

6) A transverse plane could cut the head off the body!

Answer: TRUE

Section: 1.2

Book LO: 1.7

Global LO: G2

Bloom's Level: Remembering/Understanding

7) In anatomical position, the palms of the hands face medially toward the thighs.

Answer: FALSE

Section: 1.2

Book LO: 1.6

Global LO: G2

Bloom's Level: Remembering/Understanding

8) The mediastinum contains the trachea and lungs.

Answer: FALSE

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

9) The peritoneal cavity is a serous cavity.

Answer: TRUE

Section: 1.2

Book LO: 1.9

Global LO: G2

Bloom's Level: Remembering/Understanding

10) EM has much greater resolution than LM.

Answer: TRUE

Section: 1.3

Book LO: 1.12

Global LO: G1

Bloom's Level: Remembering/Understanding

11) A CT scan produces an image of a transverse section of the body.

Answer: TRUE

Section: 1.4

Book LO: 1.13

Global LO: G7

Bloom's Level: Remembering/Understanding

12) MRI techniques can show only images that are hard and deflect the X-rays.

Answer: FALSE

Section: 1.4

Book LO: 1.13

Global LO: G7

Bloom's Level: Remembering/Understanding

13) Ultrasound techniques are used to image a fetus because they are less damaging than other techniques.

Answer: TRUE

Section: 1.4

Book LO: 1.13

Global LO: G1

Bloom's Level: Remembering/Understanding

14) Angiography imaging is used primarily in the study of blood supply to the heart wall and brain.

Answer: TRUE

Section: 1.4

Book LO: 1.13

Global LO: G7

Bloom's Level: Remembering/Understanding

15) A CT scan is used to detect regions of high metabolic activity.

Answer: FALSE

Section: 1.4

Book LO: 1.13

Global LO: G2

Bloom's Level: Remembering/Understanding

1.3 Short Answer Questions

1) Describe the terms *proximal* and *distal*.

Answer: *Proximal* means closer to the point of attachment to the main part of the body; *distal* is farther from the point of attachment.

2) Describe the location of the femoral region in relation to the crural region.

Answer: The femoral region is proximal to the crural region.

3) Describe the location of the brachial region in relation to the pollex.

Answer: The brachial region is proximal to the pollex.

4) In humans, what term is synonymous with posterior?

Answer: dorsal

5) Clinicians refer to _____ anatomy when locating blood vessels to draw blood, feeling pulses, and avoiding nerves while giving injections.

Answer: surface

6) In humans, the region between the anus and the external genitals is the _____ region.

Answer: perineal

7) The olecranal region is posterior to what region?

Answer: antecubital

8) The head, neck, and trunk comprise the _____ region.

Answer: axial

9) What is the anatomical term for the thumb?

Answer: pollex

10) One could say that the forearm is _____ to the brachial region.

Answer: distal

11) Cutting the body along the median plane produces a(n) _____ section

Answer: midsagittal

12) One could describe the scalp as being _____ to the skull.

Answer: superficial

13) A(n) _____ plane separates the body into equal left and right halves.

Answer: midsagittal (or median)

14) Which type of imaging technology uses radioactive isotopes to detect regions of high metabolic activity?

Answer: PET scan

15) The _____ system is involved in immunity.

Answer: lymphatic

1.4 Essay Questions

1) Identify each of the systems that are found in the arm.

Answer: The arm contains elements of the skeletal, nervous, cardiovascular, muscular, lymphatic, and integumentary systems.

2) Which of the organ systems found in the arm are *not* found in the leg?

Answer: None

3) List the six unique features found in all vertebrates at some stage of their life.

Answer: Tube-within-a-tube body plan, bilateral symmetry, dorsal hollow nerve cord, notochord and vertebrae, segmentation, and pharyngeal pouches.

4) In adult humans, what remnants of segmentation remain?

Answer: The ribs and the vertebrae, with their segmental spinal nerves, are remnants of segmentation.

5) Select from the following techniques the best method for assessing brain function in a stroke patient: X-ray imaging, sonography, MRI. Explain why the other choices are not the best choice.
Answer: MRI is the best method of assessing brain function. X-rays do not image soft tissues well or with high resolution. They also produce only two-dimensional images of a structure. Sonography cannot be used to study the brain because sound waves cannot pass through the skull.