Christensen: Adult Health Nursing, 6th Edition

Chapter 01: Introduction to Anatomy and Physiology

Test Bank

MULTIPLE CHOICE

1. The anatomical term ____ means toward the midline.
a. anterior
b. posterior
c. medial
d. cranial

ANS: C
Definition—toward the midline.

DIF: Cognitive Level: Knowledge REF: Page 1, 2, Figure 1-2
OBJ: 2 TOP: Anatomical terminology
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

2. The smallest living components in our body are
a. cells.
b. organs.
c. electrons.
d. osmosis.

ANS: A
Cells are considered to be the smallest living units of structure and function in our body.

DIF: Cognitive Level: Knowledge REF: Page 4 OBJ: 1
TOP: Structural levels of organization KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

3. The largest organelle, responsible for cell reproduction and control of other organelles, is the
a. nucleus.
b. ribosome.
c. mitochondrion.
d. Golgi apparatus.

ANS: A
The nucleus is the largest organelle within the cell.

DIF: Cognitive Level: Knowledge REF: Page 6 OBJ: 1
TOP: Parts of the cell KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

4. A patient complains of pain in her bladder. In which body cavity are the bladder, lower colon, rectum, and urinary and reproductive systems located?
a. Pelvic
b. Mediastinum
c. Pleural
d. Abdominal

ANS: A
A subdivision called the pelvic cavity contains the lower portion of the large intestine (lower sigmoid colon, rectum), urinary bladder, and internal structures of the reproductive system.

DIF: Cognitive Level: Comprehension REF: Page 2, Table 1-1
OBJ: 14 TOP: Body cavities
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

5. The four phases of cell division all occur in
a. diffusion.
b. mitosis.
c. osmosis.
d. filtration.

ANS: B
During mitosis, the cell goes through four phases: prophase, metaphase, anaphase, and telophase.

DIF: Cognitive Level: Knowledge REF: Page 7, Figure 1-9
OBJ: 5 TOP: Cell division
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

6. Telophase is which phase of cell reproduction during mitosis?
a. First phase
b. Latent phase
c. Final phase
d. Spindle phase

ANS: C
During mitosis, the cell goes through four phases: prophase, metaphase, anaphase and telophase.

DIF: Cognitive Level: Knowledge REF: Page 8, Figure 1-9
OBJ: 5 TOP: Cell division
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

7. The muscle tissue cells that are nonstriated and appear in the viscera or internal organs, such as the walls of the intestines, are
a. skeletal.

b. glial.
c. smooth.
d. fibrous.

ANS: C
Visceral (smooth) muscles are nonstriated and have a smooth appearance.

DIF: Cognitive Level: Knowledge REF: Page 11, Figure 1-12, C
OBJ: 7 TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

8. A group of several different kinds of tissues arranged so that together they can perform a more complex function than any tissue alone is called a(n)
a. organ.
b. system.
c. cell.
d. endoplasmic reticulum.

ANS: A
When several kinds of tissues are united to perform a more complex function than any tissue alone, they are called organs.

DIF: Cognitive Level: Knowledge REF: Page 12 OBJ: 6
TOP: Organs KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

9. Visceral muscles are
a. smooth and voluntary.
b. smooth and involuntary.
c. striated and voluntary.
d. striated and involuntary.

ANS: B
Visceral (smooth) muscles will not function at will; thus, they act involuntarily.

DIF: Cognitive Level: Knowledge REF: Page 11 OBJ: 6
TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

10. The thoracic and abdominal cavities are separated by the
a. pleura.
b. diaphragm.
c. spinal column.
d. peritoneum.

ANS: B
The diaphragm (a muscle directly beneath the lungs) separates the ventral cavity into the thoracic (chest) and abdominal cavities.

DIF: Cognitive Level: Knowledge REF: Page 2, Figure 1-3
OBJ: 14 TOP: Ventral cavity
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

11. The section of biology dealing with human structure is
a. psychiatry.
b. anatomy.
c. surgery.
d. physiology.

ANS: B
Anatomy is the study, classification, and description of the structure and organs of the body.

DIF: Cognitive Level: Knowledge REF: Page 1 OBJ: 1
TOP: Terminology KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

12. ____ explains the processes and functions of many structures of the body and how they interact with one another.
a. Anatomy
b. Mitosis
c. Filtration
d. Physiology

ANS: D
Physiology explains the processes and functions of the various structures and how they interrelate with one another.

DIF: Cognitive Level: Knowledge REF: Page 1 OBJ: 2
TOP: Terminology KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

13. The doctor tells the nurse that the patient is complaining of pain in the thoracic cavity. The patient is complaining of pain in the thoracic cavity. The anatomical structure(s) which is/are not in the thoracic cavity is/are the _____.
a. Heart
b. Lungs
c. Blood vessels
d. Small intestine

ANS: D
The small intestine is located in the abdominal cavity.

DIF: Cognitive Level: Comprehension REF: Pages 2-3, Figure 1-3, Table 1-1
OBJ: 14 TOP: Ventral cavity
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

14. When several organs and parts are grouped together for certain functions, they form
a. tissues.
b. systems.
c. cells.
d. membranes.

ANS: B
A system is an organization of varying numbers and kinds of organs arranged so that together they can perform complex functions for the body.

DIF: Cognitive Level: Knowledge REF: Pages 4-5, 15
OBJ: 11 TOP: Systems KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

15. The plasma membrane is constructed so that
a. it is strong enough to keep the cell whole.
b. nutrients can enter and waste products can leave.
c. only oxygen can pass through.
d. blood cells can pass through.

ANS: A
The plasma membrane is strong enough to keep the cell whole and intact.

DIF: Cognitive Level: Comprehension REF: Page 5 OBJ: 4
TOP: Cells KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

16. In anatomical terminology, posterior means
a. toward the tail.
b. toward the head.
c. toward the back.
d. below the trunk.

ANS: C
The posterior is toward the back.

DIF: Cognitive Level: Knowledge REF: Page 1, Figure 1-2
OBJ: 13 TOP: Anatomical terminology
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

17. The transverse imaginary body plane
a. divides front and back (coronal) of the body.
b. divides the body lengthwise (two equal halves).
c. divides superior and inferior portions of the body.
d. divides the body into axial and appendicular.

ANS: C
The transverse plane cuts the body horizontally into the sagittal and the frontal planes, dividing the body into caudal and cranial portions.

DIF: Cognitive Level: Knowledge REF: Page 2, Figure 1-2
OBJ: 14 TOP: Body planes KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

18. Caudal is defined as toward the ____.
a. head
b. feet
c. tail
d. chest

ANS: C
Toward the "tail," the distal portion of the spine.

DIF: Cognitive Level: Knowledge REF: Page 1 OBJ: 3
TOP: Anatomical terminology KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

19. Movement of water from an area of lower concentration to an area of higher concentration is called
a. absorption.
b. filtration.
c. diffusion.
d. osmosis.

ANS: D
Osmosis is the passage of water from less concentrated solution to more concentrated solution.

DIF: Cognitive Level: Knowledge REF: Page 9, Table 1-4
OBJ: 10 TOP: Transport processes
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

20. The type of tissue composed of cells that contract in response to a message from the brain or spinal cord is
a. epithelial.
b. connective.
c. membrane.
d. muscle.

ANS: D
Muscle tissue is composed of cells that contract in response to a message from the brain or spinal cord.

DIF: Cognitive Level: Knowledge REF: Page 11 OBJ: 7

TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

21. A type of tissue that stores fat is called
a. peripheral tissue.
b. adipose tissue.
c. osseous tissue.
d. muscle tissue.

ANS: B
One of the most important forms of connective tissue is adipose (fat) tissue.

DIF: Cognitive Level: Knowledge REF: Page 11, Table 1-5
OBJ: 7 TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

22. The thin sheets of tissue that secrete mucus and line the body surfaces that open to the outside environment are
a. mucous membranes.
b. serous membranes.
c. striated, involuntary.
d. visceral, involuntary.

ANS: A
Mucous membranes secrete mucus. They line body surfaces that open to the outside environment.

DIF: Cognitive Level: Knowledge REF: Page 12 OBJ: 7
TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

23. When a cell engulfs or surrounds foreign material, this process is called
a. pinocytosis.
b. phagocytosis.
c. absorption.
d. diffusion.

ANS: B
Phagocytosis is the process that permits a cell to engulf or surround any foreign material and digest it.

DIF: Cognitive Level: Knowledge REF: Page 9, Table 1-3, Figure 1-10
OBJ: 10 TOP: Active transport processes
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

24. Passive transport in movement of material across cell membranes includes
a. infiltration and diffusion.
b. pinocytosis and phagocytosis.

c. osmosis and filtration.
d. anaphase and telophase.

ANS: C
The primary passive transport processes include diffusion, osmosis, and filtration.

DIF: Cognitive Level: Comprehension REF: Page 9, Table 1-4
OBJ: 10 TOP: Passive transport processes
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

25. The passage of water containing dissolved materials through a membrane as the result of a greater mechanical force on one side is called
a. metabolism.
b. mitosis.
c. filtration.
d. osmosis.

ANS: C
Filtration is the movement of water and particles through a membrane by a force from either pressure or gravity.

DIF: Cognitive Level: Knowledge REF: Page 9 OBJ: 10
TOP: Passive transport processes KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

26. Cardiac tissue is striated, involuntary tissue that branches out to form networks found only in the wall of the heart. This type of tissue is
a. epithelial.
b. connective.
c. muscle.
d. nervous.

ANS: C
Cardiac muscle cells are striated with fibers that branch to form many networks, or webs.

DIF: Cognitive Level: Knowledge REF: Page 11, Figure 1-12
OBJ: 7 TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

27. Tissues that cover the outside of the body and some internal structures are
a. connective.
b. epithelial.
c. nerve.
d. muscle.

ANS: B
Epithelial tissue covers the outside of the body and some of the internal structures.

DIF: Cognitive Level: Knowledge REF: Page 11 OBJ: 7
TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

28. When the nurse assesses an arm in proximal distal order, the assessment is performed from
a. the shoulder to the fingers
b. front to back.
c. fingers to the center of the body
d. center of the body to the fingers

ANS: A
Proximal is nearest the origin of the structure. Distal is farthest from the origin of the structure.

DIF: Cognitive Level: Comprehension REF: Page 2 OBJ: 13
TOP: Anatomical terminology KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

29. Epithelial membranes function is to:
a. Secrets mucous, line ends of bones and line bursae
b. Line ends of bones, secrete synovial fluid, line internal surfaces of organs
c. Cover the wall of lower digestive tract, secrets mucous and lines lungs, peritoneum and pericardium
d. Line lungs, peritoneum and pericardium and secrete synovial fluid

ANS: C
The epithelial membrane secretes mucus, lines the lungs, peritoneum, and pericardium and covers the wall of lower digestive tract.
The synovial membrane secretes synovial fluid to prevent friction between joints and the ends of bones and lines the bursae found between moving body parts.

DIF: Cognitive Level: Knowledge REF: Page 12 OBJ: 7
TOP: Tissues KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

MULTIPLE RESPONSE

30. Which are among the 11 body systems? (Select all that apply.)
a. Lymphatic
b. Cellular
c. Digestive
d. Reproductive
e. Accessory
f. Spinal cord

ANS: A, C, D
There are 11 body systems: integumentary, respiratory, skeletal, digestive, muscular, nervous, endocrine, urinary, reproductive, cardiovascular, and lymphatic.

DIF: Cognitive Level: Knowledge REF: Pages 2, 15 , Table 1-6
OBJ: 9 TOP: Body systems
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

31. What are the characteristics of life that all cells exhibit? (Select all that apply.)

a. Growth
b. Metabolism
c. Reproduction
d. Responsiveness
e. Homeostasis

ANS: A, B, C, D, E
The five characteristics that all cells exhibit are: Growth, Metabolism, Reproduction, Responsiveness, and Homeostasis.

DIF: Cognitive Level: Knowledge REF: Page 5 OBJ: 8
TOP: Cells KEY: Nursing Process Step: Assessment
MSC: NCLEX: Physiological Integrity

COMPLETION

32. The three functions of epithelial tissue are _____, _____, and _____.

ANS:
protection, absorption, secretion
protection, secretion, absorption
absorption, secretion, protection
absorption, protection, secretion
secretion, protection, absorption
secretion, absorption, protection

The function of epithelial tissue is protection by covering the body and preventing invasion; absorption by absorbing material; and secretion by secreting mucus to line and moisten the body surfaces.

DIF: Cognitive Level: Knowledge REF: Page 11 OBJ: 12
TOP: Anatomical terminology | Ventral cavity
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

33. A muscle that separates the ventral cavity into the thoracic and abdominal cavity is called the _____.

ANS: diaphragm

DIF: Cognitive Level: Knowledge REF: Page 2, Figure 1-3
OBJ: 14 TOP: Ventral cavity
KEY: Nursing Process Step: Assessment MSC: NCLEX: Physiological Integrity

34. List in order of complexity the structural levels of organization of the body. Place a comma between each answer choice (a, b, c, d, etc.).

a. Body as a whole
b. Cellular
c. Organs
d. Tissue
e. Chemical
f. System

ANS:
E, B, D, C, F, A
e, b, d, c, f, a

DIF: Cognitive Level: Comprehension REF: Pages 3-4, Figure 1-6
OBJ: 11 TOP: Structural levels of organization
KEY: Nursing Process Step: N/A MSC: NCLEX: N/A