

**TEST BANK FOR ANATOMY &
PHYSIOLOGY: AN
INTEGRATIVE APPROACH 4TH
EDITION MICHAEL MCKINLEY
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Chapter 01 The Sciences of Anatomy and Physiology

Multiple choice:

- 1) If a scientist forms and tests a hypothesis, but gets unexpected results, what is a logical next step? Check all that apply.
 - A) Accept the original hypothesis
 - B) Reject the original hypothesis
 - C) Revise the original hypothesis
 - D) Design a new experiment based on a new or modified hypothesis.

- 2) Some researchers think pheromones are important tools in human communication. Pheromones are chemical signals that one individual sends to another. What research questions might be asked by anatomists, and what questions might be asked by physiologists, to determine if pheromones are important to humans?

- 3) Iron atoms help our blood transport oxygen. Describe each level of anatomical structural complexity for an iron atom in your blood, working from the simplest level (atom) to the most complex (organism).

4) If someone speaks too loudly into a microphone, a public address system will sometimes produce a loud whistle of amplified feedback. Explain whether this is an example of negative or positive feedback, and explain how the microphone, control box, and speaker of the system serve as the different components of a feedback loop.

5) The discipline known as _____ anatomy examines similarities and differences across species.

6) The discipline that studies the functions of the nervous system, including the way that impulses are conducted, is known as _____.

7) The discipline that associates changes in organ system function with disease or injury is known as _____.

8) The group of metabolic reactions in which smaller molecules are combined to form larger ones is _____.

9) Specialized subunits of cells that are made of macromolecules are called _____.

10) The organ system that transports and filters interstitial fluid while also participating in immune responses is the _____ system.

11) The pituitary, thyroid, and adrenal glands are typically grouped within the _____ system.

12) The appendix is in the right iliac region, and is therefore located in the _____ quadrant.

13) The level of organization one step more complex than the organ level is the _____ level.

14) The state of equilibrium, or fairly constant internal environment, in the body is called _____.

15) The _____ reproductive system produces oocytes.

16) The antecubital region is _____ to the brachial region.

- 17) The muscular partition that separates the thoracic and abdominopelvic cavities is the thoracic_____.
- 18) The hypogastric region is located_____to the right iliac region.
- 19) Sensory nerves that detect changes in a variable that is being regulated comprise the _____of the control mechanism.
- 20) In a homeostatic control mechanism, the receptor detects changes in the environment and relays that information to the_____.
- 21) The reinforcement of a stimulus so that a climax is reached is known as_____.
- 22) The word "anatomy" comes from
- A) Latin and means "to be born."
 - B) Hebrew and means "shape."
 - C) Greek and means "to cut apart."
 - D) German and means "body."
 - E) Italian and means "form."
- 23) A scientist who describes the layers of the heart wall and their relationship to the surrounding pericardium would be a(n)

- A) anatomist.
- B) physiologist.
- C) pathologist.
- D) pulmonologist.

24) _____ anatomy examines both superficial anatomic markings and internal body structures as they relate to the skin covering them.

- A) Regional
- B) Surface
- C) Radiographic
- D) Surgical
- E) Systemic

25) Which branch of microscopic anatomy is the study of tissues?

- A) Histology
- B) Cytology
- C) Embryology
- D) Developmental anatomy
- E) Surgical anatomy

26) Gross anatomy refers to the study of

- A) cells.
- B) structures formed by cells.
- C) structures not visible to the unaided eye.
- D) structures visible to the unaided eye.
- E) nasal secretions.

- 27) The anatomic changes that result from disease are studied under
- A) pathologic anatomy.
 - B) systemic anatomy.
 - C) histology.
 - D) surgical anatomy.
 - E) developmental anatomy.
- 28) The two main divisions of microscopic anatomy are
- A) embryology and parasitology.
 - B) cytology and histology.
 - C) comparative anatomy and pathological anatomy.
 - D) neurobiology and surface anatomy.
- 29) When medical students study all of the structures in a particular area of the body as a unit (for example, all the muscles, blood vessels, and nerves of the leg), that approach is called
- A) surface anatomy.
 - B) comparative anatomy.
 - C) popliteal physiology.
 - D) regional anatomy.
 - E) systemic anatomy.
- 30) The scientific discipline that studies the functions of body structures is
- A) anatomy.
 - B) physiology.