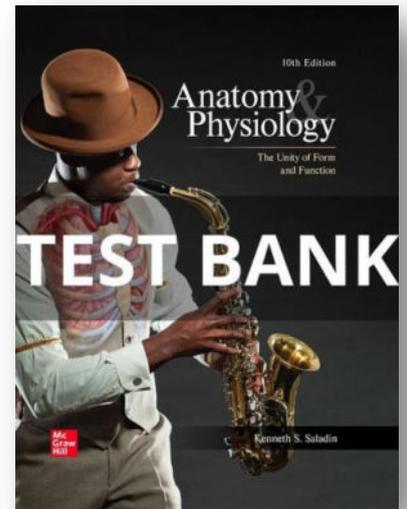


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Chap 01 10e Saladin

- 1) The study of normal body structures is called_____.
 - A) physiology
 - B) anatomy
 - C) pathology
 - D) microscopy
 - E) biology
- 2) The study of how the body functions is called_____.
 - A) neuroanatomy
 - B) anatomy
 - C) chemistry
 - D) histology
 - E) physiology
- 3) Feeling for swollen lymph nodes is an example of auscultation. true
 false
- 4) We can see through bones with magnetic resonance imaging (MRI). true
 false
- 5) Histology is the study of structures that can be observed without a magnifying lens. true
 false
- 6) Feeling structures with your fingertips is called_____, whereas tapping on the body and listening for sounds of abnormalities is called_____.
 - A) palpation; auscultation
 - B) auscultation; percussion
 - C) percussion; auscultation
 - D) palpation; percussion E) percussion; palpation
- 7) Which of these is the best imaging technique for routinely examining the anatomical development of a fetus?
 - A) Auscultation
 - B) PET scan



- C) MRI
- D) Sonography
- E) Radiography

- 8) The study of the structure and function of cells is called _____. A) cytology
- B) gross anatomy
 - C) exploratory physiology
 - D) comparative physiology
 - E) radiology

- 9) Ultrastructure refers to the detailed structure to the level of the _____.
- A) molecule
 - B) cell
 - C) organelle
 - D) tissue
 - E) organ

10) The study of how hormones function is called_____.

- A) neuroanatomy
- B) neurophysiology
- C) endocrinology
- D) histology
- E) pathophysiology

11) The study of mechanism of disease is called_____.

- A) neuroanatomy
- B) neurophysiology
- C) endocrinology
- D) histology
- E) pathophysiology

12) The terms *physics*, *physiology*, and *physician* come from a term_____proposed to distinguish natural causes from supernatural causes.

- A) Hippocrates
- B) Plato
- C) Schwann
- D) Aristotle
- E) Avicenna

13) Who was a physician to the Roman gladiators, learned by dissection of animals, and saw science as a method of discovery?

- A) Hippocrates
- B) Plato
- C) Schwann
- D) Aristotle
- E) Galen

14) Cells were first named by microscopist Robert Hooke. true

false

15) All functions of the body can be interpreted as the effects of cellular activity. true

false

- 16) Known as "the father of modern anatomy," _____ was the first to publish accurate drawings of the body.
- A) Vesalius
 - B) Maimonides
 - C) Harvey
 - D) Aristotle
 - E) van Leeuwenhoek
- 17) The most influential medical textbook of the ancient era was written by_____.
- A) Hippocrates
 - B) Aristotle
 - C) Galen
 - D) Vesalius
 - E) Avicenna
- 18) Who established a code of ethics for physicians and is considered the "father of medicine"?
- A) Aristotle
 - B) Hippocrates
 - C) Galen
 - D) Vesalius
 - E) Hooke
- 19) The *hypothetico-deductive method* is common in physiology, whereas the *inductive method* is common in anatomy.
- true
 - false

- 20) What is the process of using numerous observations to develop general principles and predictions about a specific subject called?
- A) Experimental design
 - B) The deductive method
 - C) The inductive method
 - D) A hypothesis
 - E) Statistical testing
- 21) Most people think that ulcers are caused by psychological stress. It was discovered that an acid-resistant bacterium, *Helicobacter pylori*, lives in the lining of the stomach. If these bacteria cause ulcers, then treatment with an antibiotic should reduce ulcers. This line of investigation is an example of_____.
- A) hypothetical reasoning
 - B) hypothetico-deductive reasoning
 - C) the inductive method
 - D) experimental design
 - E) statistical analysis
- 22) The use of controls and statistical testing are two aspects of experimental design that help to ensure_____.
- A) an adequate sample size
 - B) objective and reliable results
 - C) experimental bias
 - D) psychosomatic effects
 - E) treatment groups
- 23) Which process submits a scientist's ideas to the critical judgment of other specialists in the field before the research is funded or published?
- A) Adjudication
 - B) Statistical testing
 - C) Falsification
 - D) Peer review
 - E) Hypothetico-deductive testing
- 24) A new drug apparently increases short-term memory. Students were divided randomly into two groups at the beginning of the semester. One group was given the memory pill once a day for the semester, and the other group was given a same-looking pill, but it was just sugar. The sugar pill is termed a(n)_____.

- A) controlled pill
- B) placebo
- C) treatment pill
- D) variable
- E) effective dose

25) Two groups of people were tested to determine whether garlic lowers blood cholesterol levels. One group was given 800 mg of garlic powder daily for four months and exhibited an average 12% reduction in the blood cholesterol. The other group was not given any garlic and after four months averaged a 3% reduction in cholesterol. The group that was not given the garlic was the _____ group.

- A) peer
- B) test
- C) treatment
- D) control
- E) double-blind

26) An individual scientific fact has more information than a theory. ☉ true ☉ false

27) An educated speculation or a possible answer to a question is called a(n) _____. A) scientific method

- B) theory
- C) law
- D) hypothesis
- E) fact

28) Which of the following would contain the greatest amount of information that scientists consider to be true to the best of their knowledge?

- A) A fact
- B) A law of nature
- C) A hypothesis
- D) An equation
- E) A theory

- 29) Evolutionary (Darwinian) medicine traces some of our diseases to our evolutionary past. true
 false
- 30) If a species of animal evolves over generations to grow a large fan-blade like growth on its back to catch the wind and cool its body, this would be an example of responding to_____.
- A) selection pressure
 - B) adaptation
 - C) natural selection
 - D) climate change
 - E) positive feedback
- 31) The terms *development* and *evolution* have the same meaning in physiology. true
 false
- 32) What is a change in the genetic composition of a population over time called?
- A) Mutation
 - B) Natural selection
 - C) Selection pressure
 - D) Evolution
 - E) Adaptation
- 33) The constant appearance of new strains of influenza virus is an example of_____.
- A) a model
 - B) evolution
 - C) selection pressure
 - D) survivorship
 - E) success
- 34) What is the principal theory of how evolution works?
- A) Natural pressure
 - B) Selective pressure
 - C) Darwinian pressure
 - D) Natural adaptation
 - E) Natural selection
- 35) Stereoscopic vision provides_____.

- A) opposable perception
- B) color perception
- C) depth perception
- D) bipedalism
- E) opposition of thumbs

36) Most primates are _____, meaning they live in trees.

- A) prehensile
- B) bipedal
- C) cursorial
- D) troglodytic
- E) arboreal

37) Which of the following was an adaptation that evolved in connection with human upright walking?

- A) Hair
- B) Fully opposable thumbs
- C) Stereoscopic vision
- D) Color vision
- E) Spinal and pelvic anatomy

38) A human is born before his/her nervous system has matured. This is traceable to_____.

- A) their inability to regulate body temperature
- B) skeletal adaptations to bipedalism
- C) the arboreal habits of early primates
- D) the conditions of modern civilization
- E) the diet of early species of Homo

39) What is the species of modern humans?

- A) *Homo erectus*
- B) *Homo sapiens*
- C) *Homo habilis*
- D) *Neanderthal*
- E) *Australopithecus*

40) Organs are made of tissues. true

- false

- 41) A molecule of water is more complex than a mitochondrion (organelle). ☉ true ☉ false
- 42) An _____ is composed of two or more tissues types, whereas _____ are microscopic structures in a cell.
- A) organ system; organs
 - B) organ system; organelles
 - C) organ; organelles
 - D) organ; molecules
 - E) organelle; molecules
- 43) Which of the following lists levels of human structure from the *most complex to the simplest*?
- A) Organelle, cell, tissue, organ, organ system
 - B) Organ system, organ, cell, tissue, organelle
 - C) Organ system, organelle, tissue, cell, organ
 - D) Organ system, organ, tissue, cell, organelle
 - E) Organ, organ system, tissue, cell, organelle
- 44) Which of the following lists examples of body structures from the *simplest to the most complex*?
- A) Mitochondrion, connective tissue, protein, stomach, adipocyte (fat cell)
 - B) Protein, mitochondrion, adipocyte (fat cell), connective tissue, stomach
 - C) Mitochondrion, connective tissue, stomach, protein, adipocyte (fat cell)
 - D) Protein, adipocyte (fat cell), stomach, connective tissue, mitochondrion
 - E) Protein, stomach, connective tissue, adipocyte (fat cell), mitochondrion
- 45) A(n) _____ is a group of similar cells and their intercellular materials in a discrete region of an organ performing a specific function.
- A) macromolecule
 - B) organ system
 - C) organelle
 - D) organism
 - E) tissue
- 46) All of the following are human organ systems *except* _____.
- A) skeletal
 - B) endocrine
 - C) epidermal

- D) reproductive
- E) lymphatic

47) All of the following are organs *except* _____.

- A) teeth
- B) the skin
- C) nails
- D) the liver
- E) the digestive system

48) Taking apart a clock to see how it works is similar to _____ thinking about human physiology.

- A) comparative
- B) evolutionary
- C) holistic
- D) inductive
- E) reductionist

49) Which of the following approaches understanding the human body by studying the interactions of its parts?

- A) Naturalism
- B) Reductionism
- C) Vitalism
- D) Holism
- E) Rationalism

50) What is the view that not everything about an organism can be understood or predicted from the knowledge of its components; that is, the whole is greater than the sum of its parts?

- A) Naturalism
- B) Reductionism
- C) Holism
- D) Materialism
- E) Science

- 51) The fact that most of us have 24 ribs, but some people have 23, 26, or more, is an example of what type of variation among organisms?
- A) Cellular
 - B) Holistic
 - C) Physiological
 - D) Anatomical
 - E) Reductionist
- 52) Why does a surgeon need to be familiar with different versions of anatomy?
- A) Cellular adaptation
 - B) Holistic medicine
 - C) Physiological variation
 - D) Anatomical variation
 - E) Evolutionary adaptation
- 53) Homeostasis and occupying space are both unique characteristics of living things. ☉ true
☉ false
- 54) What are the simplest body structures considered alive?
- A) Organ systems
 - B) Organs
 - C) Cells
 - D) Organelles
 - E) Molecules
- 55) Metabolism is the sum of all _____ change.
- A) external physical
 - B) external chemical
 - C) internal chemical
 - D) internal physical
 - E) internal integrative
- 56) The change in size of the bone marrow (where blood cells are produced) as an infant matures is an example of _____, whereas the transformation of blood stem cells into white blood cells is an example of _____.
- A) development; differentiation
 - B) growth; development
 - C) growth; differentiation
 - D) differentiation; growth

E) differentiation; development

57) A hemoglobin level of 12g/dL is normal for an adult female, but low for an adult male. What is this an example of?

- A) Cellular adaptation
- B) Holistic medicine
- C) Physiological variation
- D) Anatomical variation
- E) Structural differentiation

58) Which of the following is *not* an aspect that could result in physiological variation?

- A) Age
- B) Gender
- C) Environment
- D) Physical activity
- E) These are all aspects that can cause physiological variation.

59) We live in an ever-changing environment outside of our body, yet our internal conditions remain relatively stable. This is called_____.

- A) homeostasis
- B) metastasis
- C) responsiveness
- D) adaptation
- E) evolution

60) What are the three common components of a feedback loop? A) Stimulus, integrating (control) center, and organ system

- B) Stimulus, receptor, and integrating (control) center
- C) Receptor, integrating (control) center, and effector
- D) Receptor, organ, and organ system
- E) Receptor, integrating (control) center, and organ system

61) Negative feedback is a self-amplifying chain of events that tends to produce rapid change in the body.

- true

false

- 62) During exercise, one generates excess heat and the body temperature rises. As a response, blood vessels dilate in the skin, warm blood flows closer to the body surface, and heat is lost. This is an example of _____.
- A) negative feedback
 - B) positive feedback
 - C) dynamic equilibrium
 - D) integration control
 - E) set point adjustment
- 63) Blood glucose concentration rises after a meal and stimulates the pancreas to release the hormone insulin. Insulin travels in the blood and stimulates the uptake of glucose by body cells from the bloodstream, thus reducing blood glucose concentration. This is an example of _____.
- A) negative feedback
 - B) positive feedback
 - C) dynamic equilibrium
 - D) integration control
 - E) set point adjustment
- 64) Negative feedback loops are _____.
- A) homeostatic mechanisms
 - B) not homeostatic mechanisms
 - C) associated with "vicious circles"
 - D) self-amplifying cycles
 - E) usually harmful
- 65) Positive feedback helps to restore normal function when one of the body's physiological variables gets out of balance.
- true
 - false
- 66) When a woman is giving birth, the head of the baby pushes against her cervix and stimulates the release of the hormone oxytocin. Oxytocin travels in the blood and stimulates the uterus to contract. Labor contractions become more and more intense until the baby is expelled. This is an example of _____.

- A) negative feedback
- B) positive feedback
- C) dynamic equilibrium
- D) integration control
- E) set point adjustment

67) Which of the following is *most likely* to cause disease?

- A) Positive feedback
- B) Negative feedback
- C) Homeostasis
- D) Equilibrium
- E) Irritability

68) A physiological _____ is a difference in chemical concentration, electrical charge, physical pressure, temperature, or other variables between one point and another.

- A) gradient
- B) barrier
- C) membrane
- D) imbalance
- E) feedback loop

69) Chemicals in a solution can move down a concentration gradient. This means the chemical will move from the area of _____ concentration to the area of _____ concentration.

- A) higher; lower
- B) lower; higher
- C) equal; equal
- D) lower; lower
- E) higher; higher

70) Which of the following is *not* an example of a physiological gradient?

- A) Tissue
- B) Thermal
- C) Concentration
- D) Pressure
- E) Electrical