CHAPTER 1

1) Which technique creates a three-dimensional dynamic image of blood vessels?

A) Digital subtraction angiography
B) Magnetic resonance imaging
C) Dynamic spatial reconstruction
D) Positron emission tomography

2) Magnetic resonance imaging is based on the movement of

A) electrons in a magnetic field.
B) carbons in a magnetic field.
C) protons in a magnetic field.
D) cells in a magnetic field.

3) The delivery of a radioactive compound to the body to study the metabolism of tissues is called_blank.

A) MRI
B) PET
C) DSA
D) DSR

4) An anatomical image created from sound waves is a/an_____blank.

A) radiograph
B) CT scan
C) MRI
D) sonogram

5) A major limitation of radiographs is that they

A) can only visualize bone.
B) give only a flat, two-dimensional image of the body.
C) are old technology that do not give good results.
D) have very few applications.

6) The study of the body's organization by areas is_____blank.

A) systemic anatomy
B) regional anatomy
C) molecular biology
D) microbiology
E) surface anatomy

7) The study of the external form of the body and its relationship to deeper structures is_____blank.

A) systemic anatomy
B) regional anatomy
C) molecular biology
D) microbiology
E) surface anatomy

8) The study of tissues is_____blank.

A) cytology
B) histology
C) molecular biology
D) microbiology
E) surface anatomy

9) Anatomy is

A) the study of function.
B) a branch of physiology.
C) the study of structure.
D) the study of living organisms.
E) the study of homeostasis.

10) The study of the structural features and functions of the cell is_____blank.

A) cytology
B) histology
C) molecular biology
D) microbiology
E) surface anatomy

11) Microscopic examination of a frozen tissue specimen is an application of which of the following disciplines?

A) Histology
B) Physiology
C) Gross anatomy
D) Radiology
E) Regional anatomy

12) Which subdivision of anatomy involves the study of organs that function together?

A) Regional
B) Developmental
C) Systemic
D) Histology
E) Surface anatomy

13) An investigator who conducts an experiment to determine how changes in pH affect the function of enzymes on digestion is most likely to be a/an_____blank.

A) neurologist
B) anatomist
C) engineer
D) physiologist
E) histologist

14) An organelle is

A) a small structure within a cell.
B) a structure composed of several tissue types.
C) the basic structural unit of all living organisms.
D) a group of organs with a common set of functions.
E) a group of cells with similar structure and function.

15) An organ is

A) a small structure within a cell.
B) a structure composed of several tissue types.
C) the basic structural unit of all living organisms.
D) a group ofmolecules with a common set of functions.
E) a group of cells with similar structure and function.

16) A cell is

A) a small structurewithin a molecule.
B) a structure composed of several tissue types.
C) the basic structural unit of living organisms.
D) a group of organs with a common set of functions.
E) a group of atomswith similar structure and function.

17) A tissue is a

A) structure contained within a cell.
B) lower level of organization than a cell.
C) group of organs that performs specific functions.
D) group of cells with similar structure and function.
E) structure that contains a group of organs.

18) An organ system is

A) a small structure within a cell.
B) a structure composed of several tissue types.
C) the basic structural unit of all living organisms.
D) a group of organs with a common set of functions.
E) a group of cells with similar structure and function.

19) Which of the following systems carries necessary compounds like oxygen and nutrients throughout the body?

A) Nervous
B) Cardiovascular
C) Urinary
D) Lymphatic
E) Respiratory

20) Which organ system is the location of blood cell production?

A) Cardiovascular
B) Skeletal
C) Digestive
D) Nervous
E) Endocrine

21) Which body system would be affected by degeneration of cartilage in joints?

A) Muscular
B) Nervous
C) Cardiovascular
D) Skeletal
E) Lymphatic

22) The gallbladder, liver, and stomach are all part of the_____blank system.

A) endocrine
B) cardiovascular
C) skeletal
D) respiratory
E) digestive

23) The integumentary system

A) regulates body temperature.
B) breaks down food into small particles for absorption.
C) controls intellectual functions.
D) produces body movements.
E) coordinates and integrates body function.

24) Which system removes nitrogenous waste products from the blood and regulates blood pH, ion balance, and water balance?

A) Respiratory
B) Lymphatic
C) Cardiovascular
D) Immune
E) Urinary

25) An organism's ability to use energy in order to swim is an example of_____blank.

A) metabolism
B) responsiveness
C) organization
D) maturation
E) development

26) The changes an organism undergoes through time is called_____blank.

A) organization
B) metabolism
C) reproduction
D) growth
E) development

27) Nerve cells generate electrical signals in response to changes in the environment. This is an example of_____blank.

A) respiration
B) digestion
C) movement
D) filtration
E) responsiveness

28) An increase in the number of cells is_____blank.

A) reproduction
B) growth
C) differentiation
D) metabolism
E) organization

29) Which of the following is most consistent with homeostasis?

A) As blood pressure falls, blood flow to cardiac (heart) muscle decreases.
B) As the mean blood pressure gradually increases in aging people, the blood vessel walls become thinner.
C) People working in a hot environment drink large quantities of water, and their urine volume increases.
D) As body temperature decreases, blood vessels in the periphery dilate.
E) Elevated blood glucose levels cause insulin secretion to increase, which in turn, causes cells to take up glucose.

30) Which of the following is consistent with homeostasis?

A) As body temperature rises, sweating occurs to cool the body.

B) When a person drinks large quantities of water, urine output decreases to raise blood volume.

C) Elevated blood glucose levels cause insulin secretion to decline.

D) Decreases in blood pressure cause a corresponding decrease in heart rate.

E) As blood pressure falls, blood flow to the heart decreases.

31) In a negative feedback mechanism, the response of the effector

A) reverses the original stimulus.

B) enhances the original stimulus.

C) has no effect on the original stimulus.

D) is usually damaging to the body.

E) creates a cycle that leads away from homeostasis.

32) A researcher discovered a sensory receptor that detects decreasing oxygen concentrations in the blood. According to the principles of negative feedback, it is likely that stimulation of this sensory receptor will produce which of the following types of responses?

A) A decrease in heart rate

B) An increase in the respiratory rate

C) An increase in physical activity

D) Unconsciousness

E) Both a decrease in heart rate and an increase in the respiratory rate will occur.

33) Which of the following is NOT a component of a negative feedback mechanism?

A) Effector
B) Stabilizer
C) Control center
D) Receptor

34) The anatomical term that means "away from the midline of the body" is_____blank.

A) medial
B) proximal
C) distal
D) lateral
E) superficial

35) The thumb is_____blank to the fifth digit (little finger).

A) distal
B) lateral
C) medial
D) proximal
E) superficial

36) Which of the following describes the position of the nose?

A) Inferior to the chin
B) Superior to the forehead
C) Posterior to the ears
D) Lateral to the eyes
E) Superior to the mouth