

Exam 1 (Practice Test)

Anatomy 125

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The cells that secrete acids that dissolve bone matrix are:
A) osteoprogenitor cells
B) osteoblasts
C) osteocytes
D) osteoclasts
- 2) The bone matrix that surrounds the central canal of the osteon is arranged as:
A) circumferential lamellae
B) interstitial lamellae
C) concentric lamellae
D) none of the above
- 3) The merocrine sweat glands:
A) cool the skin by evaporative cooling.
B) excrete sweat that dilutes harmful chemicals and has antibacterial properties.
C) excrete metabolites and waste products.
D) all the above
- 4) The type of intercellular attachment that anchors and stabilizes the cells and helps them to resist stretching and twisting forces is the:
A) tight junction
B) gap junction
C) desmosome
D) focal adhesion
- 5) Fibrocartilage is found in:
A) pubic symphysis
B) menisci of the knee
C) intervertebral discs
D) all of the above
- 6) The cells that serve as stem cells in bone tissue are:
A) osteoclasts
B) osteoprogenitor cells
C) osteoblasts
D) osteocytes
- 7) Serous membranes are found lining the:
A) compartments of the ventral body cavity
B) joint capsules
C) digestive and reproductive tracts
D) the exterior surface of the body
- 8) The organelle that forms the basal bodies of cilia and flagella is the:
A) centriole
B) ribosome
C) Golgi apparatus
D) peroxisome
- 9) Cholesterol is a _____ found in the _____.
A) lipid; chromosome
B) lipid; cell membrane
C) protein; cell membrane
D) glycoprotein; chromosome
- 10) Cartilage grows by two mechanisms _____ growth and _____ growth.
A) appositional; endochondral
B) appositional; interstitial
C) embryonic; interstitial
D) embryonic; endochondral
- 11) The crystal that give bone its compressional strength is:
A) calcium carbonate
B) hydroxysilicate
C) hydroxyalginiate
D) hydroxyapatite

- 12) The nucleus has a _____ membrane and communicate(s) with the cytoplasm by means of (a) _____.
- A) double; perinuclear space
B) double; nuclear pores
C) single; perinuclear space
D) single; nuclear pores
- 13) The cells in the epidermis that initiate an immune response against pathogens and cancer cells is the:
- A) Langerhans cell
B) Merkel cell
C) keratinocyte
D) melanocyte
- 14) Select the gland that secretes hormones:
- A) exocrine
B) endocrine
C) apocrine
D) serous
- 15) Select the cell that represents the "typical" cell:
- A) sperm cell
B) red blood cell
C) nerve cell
D) none of the above
- 16) Bone is similar to other connective tissues in that:
- A) it has a matrix with ground substance and fibers
B) it contains elastic fibers
C) it is avascular
D) it grows by interstitial growth
- 17) Select the body part that would be **medial** to the palm of the hand:
- A) stomach
B) elbow
C) shoulder
D) thumb
- 18) The fact that epithelial cells have no blood vessels between them is a reflection of the characteristic of:
- A) avascularity
B) cellularity
C) regeneration
D) polarity
- 19) Melanocytes, Merkel cells and stem cells are found in the stratum:
- A) corneum
B) basale
C) spinosum
D) granulosum
- 20) The center of the hair that consists of soft keratin and that is not always present is the:
- A) cuticle
B) medulla
C) matrix
D) cortex
- 21) The cells that occupy lacunae and maintain the protein and mineral content of the surrounding matrix of bone are:
- A) osteoclasts
B) osteoprogenitor cells
C) osteocytes
D) osteoblasts
- 22) Peroxisomes:
- A) contain oxidative enzymes
B) produce hydrogen peroxide
C) contain catalase
D) all of the above
- 23) The layer that contains capillaries that supply the epidermis with oxygen and nutrients is the:
- A) reticular layer of the dermis
B) stratum basale
C) subcutaneous layer
D) papillary layer of the dermis
- 24) The basal lamina (basement membrane) consists of the lamina _____ and the lamina _____.
- A) lucida; basale
B) lucida; densa
C) reticularis; densa
D) spinosum; granulosum
- 25) During endochondral ossification, the secondary ossification center forms in the:
- A) growth plate
B) diaphysis
C) epiphysis
D) metaphysis

- 26) The type of fiber found in connective tissue proper that combines the properties of tensile strength with flexibility is:
 A) elastic B) keratin C) reticular D) collagen
- 27) The cuticle is also known as the _____ and is a fold of the stratum _____.
 A) hyponychium; corneum B) hyponychium; spinosum
 C) eponychium; corneum D) eponychium; spinosum
- 28) A membrane enclosed space called a cisterna is found in the:
 A) centrosome B) mitochondrion
 C) endoplasmic reticulum D) lysosome
- 29) The fluid within the inner membrane of the mitochondrion is called the:
 A) vesicle B) cytosol C) cisterna D) matrix
- 30) Select the earliest stage of intramembranous ossification:
 A) bone grows in linear extensions called spicules
 B) remodeling produces compact bone
 C) enlargement and fusion of spicules forms spongy bone
 D) mesenchymal cells become osteoblasts
- 31) The organelle that has a forming face and a maturing face that produces secretory vesicles is the:
 A) lysosome B) Golgi apparatus
 C) mitochondrion D) endoplasmic reticulum
- 32) The protein subunits that form the collagen and elastic fibers found in connective tissue are secreted by:
 A) mast cells B) fibroblasts
 C) fixed macrophages D) melanocytes
- 33) Select the gland that is a true apocrine gland:
 A) ceruminous gland B) apocrine sweat gland
 C) mammary gland D) merocrine sweat gland
- 34) The accessory structures of the skin develop from invaginations of the:
 A) hypodermis B) dermis C) epidermis D) all of the above
- 35) The intracellular fluid of the cell that contains a high concentration of dissolved and suspended protein is:
 A) endoplasm B) cytoplasm C) cytosol D) ground substance
- 36) Ciliated epithelium is typically of the:
 A) upper respiratory tract B) urinary tract
 C) digestive tract D) integument
- 37) The type of epithelium that sometimes lines the ducts of sweat glands and the larger ducts of exocrine glands is _____ epithelium.
 A) stratified cuboidal B) pseudostratified columnar
 C) stratified squamous D) transitional
- 38) The type of tissue that blood and lymph would be classified as is:
 A) muscular B) epithelium C) neural D) connective

- 1) D
- 2) C
- 3) D
- 4) C
- 5) D
- 6) B
- 7) A
- 8) A
- 9) B
- 10) B
- 11) D
- 12) B
- 13) A
- 14) B
- 15) D
- 16) A
- 17) A
- 18) A
- 19) B
- 20) B
- 21) C
- 22) D
- 23) D
- 24) B
- 25) C
- 26) D
- 27) C
- 28) C
- 29) D
- 30) D
- 31) B
- 32) B
- 33) C
- 34) C
- 35) C
- 36) A
- 37) A
- 38) D
- 39) A
- 40) D
- 41) C
- 42) D
- 43) B
- 44) A
- 45) D
- 46) C
- 47) A
- 48) B
- 49) D
- 50) B