

2022 /Histology MCQ

Cells

1.

Which of the following is NOT a membranous organelle?

- a. Lysosomes
- b. Peroxisomes
- c. Mitochondria
- d. Ribosomes**
- e. Endoplasmic reticulum

2.

Which organelle contains digestive enzymes?

- a. Rough endoplasmic reticulum
- b. Smooth endoplasmic reticulum
- c. Lysosome**
- d. Golgi apparatus
- e. Mitochondria

3.

Which organelle is considered the powerhouse of the cell?

- a. Rough endoplasmic reticulum
- b. Smooth endoplasmic reticulum
- c. Lysosome
- d. Golgi apparatus
- e. Mitochondria**

4.

What structure is at the base of cilia?

- a. Ribosomes
- b. Peroxisome
- c. Microfilaments
- d. Centrioles**
- e. Nucleoli

5.

Which of the following is NOT considered an inclusion?

- a. Pigment

- b. Glycogen
- c. Lipid
- d. Secretory granules
- e. Mitochondria**

6.

Collectively, what is the cytoplasm and nucleus called?

- a. Plasmalemma
- b. Glycocalyx
- c. Protoplasm**
- d. Cristae
- e. Ground substance

7.

How thick is the plasma membrane?

- a. 8-10 angstroms
- b. 8-10 nanometers**
- c. 8-10 micrometers
- d. 8-10 millimeters
- e. None of the above

8.

What is the term for the general process that cells use to expunge material from the cell?

- a. Endocytosis
- b. Exocytosis**
- c. Pinocytosis
- d. Phagocytosis
- e. Active transport

9.

Which organelle sorts and packages proteins within a cell?

- a. Rough endoplasmic reticulum
- b. Smooth endoplasmic reticulum
- c. Lysosome
- d. Golgi apparatus**
- e. Mitochondria

10.

Which of the following is NOT a membranous organelle?

- a. Lysosomes
- b. Filaments**
- c. Peroxisomes
- d. Mitochondria
- e. Endoplasmic reticulum



1.

What are the folds on the inner mitochondrial membrane called?

- a. Plasmalemma
- b. Glycocalyx
- c. Protoplasm
- d. Cristae**
- e. Ground substance

2.

Which organelle is involved in lipid metabolism?

- a. Rough endoplasmic reticulum
- b. Smooth endoplasmic reticulum**
- c. Lysosome
- d. Golgi apparatus
- e. Mitochondria

3.

Which organelle contains detoxifying enzymes?

- a. Ribosomes
- b. Peroxisome**
- c. Microfilaments
- d. Centrioles
- e. Nucleoli

4.

Which of the following is NOT a membranous organelle?

- a. Microtubules**
- b. Lysosomes
- c. Peroxisomes
- d. Mitochondria
- e. Endoplasmic reticulum

5.

What is the limiting membrane of a cell?

- a. Plasmalemma**
- b. Glycocalyx
- c. Protoplasm
- d. Cristae
- e. Ground substance

6.

What is also called a low resistance junction?

- a. Tight junction
- b. Gap junction**
- c. Junctional epithelium
- d. Junctional complex
- e. None of the above

7.

Which of the following is an organelle?

- a. Pigment
- b. Glycogen
- c. Lipid
- d. Secretory granules
- e. Mitochondria**

8.

What is the term for the general process that cells use to bring things into the cell?

- a. Endocytosis**
- b. Exocytosis
- c. Pinocytosis
- d. Phagocytosis
- e. Active transport

9.

Which organelle produces protein for export?

- a. Rough endoplasmic reticulum**
- b. Smooth endoplasmic reticulum
- c. Lysosome
- d. Golgi apparatus
- e. Mitochondria

10.

Where are ribosomes constructed?

- a. Cytoskeleton
- b. Peroxisome
- c. Microfilaments
- d. Centrioles
- e. Nucleoli**



1.

What is the term for the process used by cells for the transport in of particulate matter?

- a. Endocytosis

- b. Exocytosis
- c. Pinocytosis
- d. Phagocytosis**
- e. Active transport

2.

What is another term for the cytoplasm outside of organelles?

- a. Plasmalemma
- b. Glycocalyx
- c. Protoplasm
- d. Cristae
- e. Ground substance**

3.

What is the a small clear space within a cell?

- a. Space of Disse
- b. Space of Mall
- c. Vacuole**
- d. Lacuna
- e. Howship's lacuna

4.

Which of the following is NOT a membranous organelle?

- a. Lysosomes
- b. Peroxisomes
- c. Centrioles**
- d. Mitochondria
- e. Endoplasmic reticulum

5.

What is the polysaccharide coating that is sometimes found on the cell membrane?

- a. Plasmalemma
- b. Glycocalyx**
- c. Protoplasm
- d. Cristae
- e. Ground substance

6.

What process is nicknamed "cell drinking"?

- a. Endocytosis
- b. Exocytosis
- c. Pinocytosis**
- d. Phagocytosis
- e. Active transport

7.

Which organelle is studded with ribosomes?

- a. Rough endoplasmic reticulum**
- b. Smooth endoplasmic reticulum
- c. Lysosome
- d. Golgi apparatus
- e. Mitochondria

8.

Where is the site of protein synthesis?

- a. Ribosomes**
- b. Peroxisome
- c. Microfilaments
- d. Centrioles
- e. Nucleoli

9.

What structure contributes to the cells cytoskeleton?

- a. Ribosomes
- b. Peroxisome
- c. Microfilaments**
- d. Centrioles
- e. Nucleoli



Epithelium Tissue

1.

What type of tissue lines the bladder?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Transitional epithelium**

2.

What type of tissue lines most ducts?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium**
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Transitional epithelium

3.

What type of epithelium is associated with goblet cells?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium**
- d. Stratified squamous epithelium
- e. Pseudostratified epithelium

4.

What type of epithelial cells are as tall as they are wide?

- a. Simple
- b. Stratified
- c. Squamous
- d. Cuboidal**
- e. Columnar

5.

What do you call the simple squamous epithelium that lines the blood vessels?

- a. Epithelioid tissue
- b. Mesothelium
- c. Endothelium**
- d. Transitional
- e. Pseudostratified

6.

What cell type makes up the mucosa of the gallbladder?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium**
- d. Stratified squamous epithelium
- e. Transitional epithelium

7.

Which of the following is lined by a serosa?

- a. Genitourinary tract
- b. Peritoneal cavity**
- c. Respiratory tract
- d. Alimentary canal
- e. All of the above are lined by a serosa

8.

What type of gland secretes its product through a duct or tube?

- a. Endocrine gland

- b. Multicellular gland
- c. Exocrine gland**
- d. All of the above
- e. None of the above

9.

What is a gland called if the secretory portion is flask shaped?

- a. Simple gland
- b. Compound gland
- c. Tubular
- d. Alveolar**
- e. Tubuloalveolar

10.

What forms the brush border?

- a. Microvilli**
- b. Stereocilia
- c. Cilia
- d. Keratinization
- e. Both a and b



1.

What type of epithelium lines the trachea?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Pseudostratified epithelium**

2.

What type of tissue lines blood vessels?

- a. Simple squamous epithelium**
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Transitional epithelium

3.

What type of epithelium is more than one layer thick?

- a. Simple
- b. Stratified**
- c. Squamous
- d. Cuboidal

e. Columnar

4.

What do you call a tissue composed of a conglomeration of cells which are tightly packed together, yet which does not have a free surface? An example of such a tissue would be the parenchyma of the adrenal gland.

a. Epithelioid tissue

b. Mesothelium

c. Endothelium

d. Transitional

e. Pseudostratified

5.

What type of epithelium appears stratified, but is not?

a. Epithelioid tissue

b. Mesothelium

c. Endothelium

d. Transitional

e. Pseudostratified

6.

Which of the following is lined by a mucosa?

a. Peritoneal cavity

b. Pericardial cavity

c. Pleural cavity

d. Alimentary canal

e. All of the above are lined by a mucosa

7.

What type of gland secretes its product directly into the bloodstream?

a. Endocrine gland

b. Multicellular gland

c. Exocrine gland

d. All of the above

e. None of the above

8.

What is a gland called if it has an unbranched duct?

a. Simple gland

b. Compound gland

c. Tubular

d. Alveolar

e. Tubuloalveolar

9.

What is a gland called if the secretory portion is tube shaped ending in a flask shaped area at the terminus?

- a. Simple gland
- b. Compound gland
- c. Tubular
- d. Alveolar

e. Tubuloalveolar

10.

What is the surface modification seen on the cells of the epididymis?

- a. Microvilli
- b. Stereocilia**
- c. Cilia
- d. Keratinization
- e. Both a and b



1.

What type of epithelium forms the epidermis?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium**
- e. Pseudostratified epithelium

2.

What type of tissue lines most of the gastrointestinal tract?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium**
- d. Stratified squamous epithelium
- e. Transitional epithelium

3.

What type of tissue forms the alveoli in the lung?

- a. Simple squamous epithelium**
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Pseudostratified epithelium

4.

What type of epithelium is composed of flat cells?

- a. Simple
- b. Stratified
- c. Squamous**
- d. Cuboidal
- e. Columnar

5.

What do you call the simple squamous epithelium that lines the abdominal cavity?

- a. Epithelioid tissue
- b. Mesothelium**
- c. Endothelium
- d. Transitional
- e. Pseudostratified

6.

What type of epithelium is composed of cells which all touch the basement membrane and is only one cell layer thick?

- a. Stratified squamous epithelium
- b. Transitional epithelium
- c. Stratified cuboidal epithelium
- d. Pseudostratified epithelium**
- e. None of the above

7.

Which of the following is NOT lined by a mucosa?

- a. Genitourinary tract
- b. Pericardial cavity**
- c. Respiratory tract
- d. Alimentary canal
- e. All of the above are lined by a mucosa

8.

What is a gland called if it has an branched duct?

- a. Simple gland
- b. Compound gland**
- c. Tubular
- d. Alveolar
- e. Tubuloalveolar

9.

What are finger like projections on the surface of some cells called?

- a. Microvilli**
- b. Stereocilia
- c. Cilia

- d. Keratinization
- e. Both a and b

10.

What cell surface modification is made of microtubules?

- a. Microvilli
- b. Stereocilia
- c. Cilia**
- d. Keratinization
- e. Both a and b



1.

What type of tissue composes the kidney tubules?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium**
- c. Simple columnar epithelium
- d. Stratified squamous epithelium
- e. Transitional epithelium

2.

What type of tissue lines the esophagus?

- a. Simple squamous epithelium
- b. Simple cuboidal epithelium
- c. Simple columnar epithelium
- d. Stratified squamous epithelium**
- e. Transitional epithelium

3.

What type of epithelium is one cell layer thick?

- a. Simple**
- b. Stratified
- c. Squamous
- d. Cuboidal
- e. Columnar

4.

What type of epithelial cells are taller than they are wide?

- a. Simple
- b. Stratified
- c. Squamous
- d. Cuboidal
- e. Columnar**

5.

What type of epithelium has dome shaped cells on the apical surface?

- a. Epithelioid tissue
- b. Mesothelium
- c. Endothelium
- d. Transitional**
- e. Pseudostratified

6.

Which of the following is NOT lined by a serosa?

- a. Peritoneal cavity
- b. Pericardial cavity
- c. Pleural cavity
- d. Respiratory tract**
- e. All of the above are lined by a serosa

7.

Which of the following is a unicellular gland?

- a. Squamous cell
- b. Goblet cell**
- c. Basal cell
- d. Basket cell
- e. Sertoli cell

8.

What forms the striated border?

- a. Microvilli**
- b. Stereocilia
- c. Cilia
- d. Keratinization
- e. Both a and b

9.

What is a characteristic of the cells in the epidermis of the skin?

- a. Microvilli
- b. Stereocilia
- c. Cilia
- d. Keratinization**
- e. Both a and b

10.

What is another term for an acinar gland?

- a. Simple gland
- b. Compound gland

- c. Tubular
- d. Alveolar**
- e. Tubuloalveolar



Connective tissue

1.
Which of the following is NOT primarily composed of connective tissue?
 - a. Blood
 - b. Bone
 - c. Tendon
 - d. Intervertebral disc
 - e. Myometrium**
2.
Which of the following is NOT a fiber found in connective tissue?
 - a. Collagen fiber
 - b. Elastic fiber
 - c. Reticular fiber
 - d. Purkinje fiber**
 - e. All of the above are fibers found in connective tissue
3.
Which connective tissue cell type contains properties of smooth muscle cells?
 - a. Fibroblast
 - b. Myofibroblast**
 - c. Histocyte
 - d. Plasma cell
 - e. Mast cell
4.
Which cell is a connective tissue macrophage?
 - a. Kupffer cells
 - b. Histocyte**
 - c. Dust cell
 - d. Langerhans cell
 - e. Microglia
5.
Which of the following can be classified as "specialized connective tissue"?
 - a. Mesenchyme
 - b. Mucous connective tissue

- c. Dense connective tissue
- d. Blood**
- e. Loose connective tissue

6.

Which of the following can be classified as "embryonic connective tissue"?

- a. Cartilage
- b. Mucous connective tissue**
- d. Adipose tissue
- d. Bone
- e. Blood

7.

What type of tissue makes up the dermis of the skin?

- a. Mucous connective tissue
- b. Mesenchyme
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue**
- e. Dense regular connective tissue

8.

What type of adipose tissue tends to increase as humans age?

- a. Brown adipose tissue
- b. White adipose tissue
- c. Unilocular adipose tissue
- d. Multilocular adipose tissue
- e. Both b and c**

9.

Which of the following would be best suited to differentiate collagen fibers from other fibers?

- a. Wright's stain
- b. Hematoxylin and eosin stain
- c. Sudan stain
- d. Silver impregnation
- e. Masson's trichrome stain**



1.

Which of the following is NOT primarily composed of connective tissue?

- a. Bone marrow
- b. Articular cartilage
- c. Heart**
- d. Mesenchyme

e. Fat

2.

Which one of these cells is not a cell type routinely found in loose connective tissue?

- a. Fibroblast
- b. Microglia**
- c. Histocyte
- d. Plasma cell
- e. Mast cell

3.

Which connective tissue cell is a tissue macrophage?

- a. Fibroblast
- b. Myofibroblast
- c. Histocyte**
- d. Plasma cell
- e. Mast cell

4.

Which of the following can be classified as "specialized connective tissue"?

- a. Cartilage**
- b. Loose connective tissue
- c. Mesenchyme
- d. Dense connective tissue
- e. Mucous connective tissue

5.

Which of the following can be classified as "connective tissue proper"?

- a. Adipose tissue
- b. Dense irregular connective tissue**
- c. Bone
- d. Blood
- e. Cartilage

6.

What type of tissue is Wharton's jelly?

- a. Mucous connective tissue**
- b. Mesenchyme
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue

7.

What type of tissue is a tendon composed of?

- a. Mucous connective tissue
- b. Mesenchyme
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue**

8.

What does connective tissue develop from?

- a. Mesothelium
- b. Mesenchyme**
- c. Mesangial cells
- d. Mesentery
- e. Wharton's jelly

9.

What color do elastic fibers stain with Verhoeff Elastic stain?

- a. Red/Orange
- b. Pink/red
- c. Purple/Red
- d. Blue/black**
- e. Green/blue

10.

Which of the following is a component of the ground substance?

- a. Hyaluronic acid
- b. Proteoglycans
- c. Glycosaminoglycans
- d. Chondroitin sulfate
- e. All of the above**



1.

Which of the following is NOT primarily composed of connective tissue?

- a. Spinal cord**
- b. Pubic symphysis
- c. Ligament
- d. Areolar tissue
- e. Organ capsule

2.

Which connective tissue cell type produces the ground substance in connective tissue?

- a. Fibroblast**
- b. Myofibroblast

- c. Histiocyte
- d. Plasma cell
- e. Mast cell

3.

Which connective tissue cell is derived from B lymphocytes?

- a. Fibroblast
- b. Myofibroblast
- c. Histiocyte
- d. Plasma cell**
- e. Mast cell

4.

Which of the following can be classified as "specialized connective tissue"?

- a. Mesenchyme
- b. Bone**
- c. Dense connective tissue
- d. Mucous connective tissue
- e. Loose connective tissue

5.

Which of the following can be classified as "connective tissue proper"?

- a. Bone
- b. Blood
- c. Adipose tissue
- d. Loose irregular connective tissue**
- e. Cartilage

6.

What type of connective tissue is an undifferentiated tissue found in the embryo?

- a. Mucous connective tissue
- b. Mesenchyme**
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue

7.

What type of tissue is a ligament composed of?

- a. Mucous connective tissue
- b. Mesenchyme
- c. Loose irregular connective tissue
- d. Dense irregular connective tissue
- e. Dense regular connective tissue**

8.

Which of the following is not associated with connective tissue?

- a. Tightly packed cells**
- b. Extracellular fibers
- c. Tissue fluid
- d. Ground substance
- e. None of the above; all of the above are seen with connective tissue

9.

Which of the following would be best suited to visualize lipid?

- a. Wright's stain
- b. Hematoxylin and eosin stain
- c. Sudan stain**
- d. Silver impregnation
- e. Masson's trichrome stain

10.

A beauty treatment for the reduction of wrinkles is the injection of hyaluronic acid into the wrinkle. What is hyaluronic acid?

- a. Dermatan sulfate
- b. Proteoglycan
- c. Glycosaminoglycan**
- d. Chondroitin sulfate
- e. Keratan sulfate



1.

Which is the most abundant fiber in connective tissue?

- a. Collagen fiber**
- b. Elastic fiber
- c. Reticular fiber
- d. Purkinje fiber
- e. Muscle fibers

2.

Which connective tissue cell type produces collagen?

- a. Fibroblast**
- b. Connective tissue macrophage
- c. Histiocyte
- d. Plasma cell
- e. Mast cell

3.

Which connective tissue cell type secretes histamine?

- a. Fibroblast
- b. Myofibroblast
- c. Histocyte
- d. Plasma cell
- e. Mast cell**

4.

Which of the following can be classified as "specialized connective tissue"?

- a. Loose connective tissue
- b. Mesenchyme
- c. Adipose tissue**
- d. Mucous connective tissue
- e. Dense connective tissue

5.

Which of the following can be classified as "embryonic connective tissue"?

- a. Adipose tissue
- b. Bone
- c. Blood
- d. Cartilage
- e. Mesenchyme**

6.

What is areolar tissue?

- a. Mucous connective tissue
- b. Mesenchyme
- c. Loose irregular connective tissue**
- d. Dense irregular connective tissue
- e. Dense regular connective tissue

7.

What type of adipose tissue tends to decrease as humans age?

- a. Brown adipose tissue
- b. White adipose tissue
- c. Unilocular adipose tissue
- d. Multilocular adipose tissue
- e. Both a and d**

8.

Which of the following would be best suited to visualize reticular fibers?

- a. Wright's stain
- b. Hematoxylin and eosin stain

- c. Sudan stain
- d. Silver impregnation**
- e. Masson's trichrome stain



Cartilage

1.
What type of basic tissue type is cartilage?
 - a. Muscle
 - b. Nervous
 - c. Cartilage
 - d. Epithelium
 - e. Connective tissue**
2.
How many types of cartilage are there?
 - a. 1
 - b. 2
 - c. 3**
 - d. 4
 - e. 5
3.
What do you call the space where a chondrocyte sits in?
 - a. Space of Disse
 - b. Space of Mall
 - c. Vacuole
 - d. Lacuna**
 - e. Howship's Lacuna
4.
What stain would be best to demonstrate the elastic fibers in elastic cartilage?
 - a. Wright's stain
 - b. Hematoxylin and eosin stain
 - c. Sudan stain
 - d. Silver impregnation
 - e. Resorcin fuchsin and orcein**
5.
Which type of cartilage is found in the walls of the eustachian tube?
 - a. Hyaline cartilage
 - b. Elastic cartilage**

- c. Fibrocartilage
- d. All of the above
- e. None of the above

6.

Which type of cartilage forms the skeleton of the fetus?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above
- e. None of the above

7.

What type of tissue makes up the "Adam's apple"?

- a. Hyaline cartilage**
- b. Fibrocartilage
- c. Elastic cartilage
- d. Both a and b
- e. Both a and c

8.

Which type of cartilage forms the intervertebral disc?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage**
- d. All of the above
- e. None of the above

9.

Which type of cartilage forms the hammer, anvil and stirrup?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above
- e. None of the above**

10.

Which type of cartilage is characterized by the presence of elastic fibers?

- a. Hyaline cartilage
- b. Elastic cartilage**
- c. Fibrocartilage
- d. All of the above
- e. None of the above

11.

Which type of cartilage is highly vascular?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above

e. None of the above



1.

What cell produces the cartilaginous matrix?

- a. Chondrocyte
- b. Chondroblast**
- c. Osteocyte
- d. Osteoclast

e. Bone lining cell

2.

Which type of cartilage is found in the larynx?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage

d. Both a and b

e. All of the above

3.

Which of the following is NOT a glycosaminoglycan in cartilage?

- a. Chondroitin sulfate
- b. Proteoglycans**
- c. Keratan sulfate
- d. Hyaluronic acid

e. All of the above are glycosaminoglycans in cartilage

4.

Which type of cartilage is characterized by a glassy matrix?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage

d. All of the above

e. None of the above

5.

Which type of cartilage is characterized by the presence of chondrocytes sitting in lacunae?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above**
- e. None of the above

6.

Which type of cartilage is the most abundant?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage
- d. Hyaline cartilage and elastic cartilage equally
- e. Elastic cartilage and fibrocartilage equally

7.

Which type of cartilage forms the articular surface on bones?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above
- e. None of the above

8.

Which type of cartilage is found in the external ear?

- a. Hyaline cartilage
- b. Elastic cartilage**
- c. Fibrocartilage
- d. All of the above
- e. None of the above

9.

Costal cartilage is composed of what type of cartilage?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above
- e. None of the above

10.

Which type of cartilage forms the symphysis pubis?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage**
- d. All of the above

e. None of the above

11.

What structure is called white cartilage?

a. Hyaline cartilage

b. Elastic cartilage

c. Fibrocartilage

d. Compact bone

e. Spongy bone



1.

What is the connective tissue covering which surrounds cartilage?

a. Perimysium

b. Periosteum

c. Perichondrium

d. Perineurium

e. Endosteum

2.

Where does cartilage come from?

a. Ectoderm

b. Endoderm

c. Mesenchyme

d. Connective tissue

e. None of the above

3.

What is the mature cell in cartilage called?

a. Chondrocyte

b. Chondroblast

c. Osteocyte

d. Osteoclast

e. Bone lining cell

4.

Regarding the blood supply to cartilage:

a. Cartilage has minimal circulation

b. Cartilage has a dual circulation

c. Cartilage is highly vascular

d. Cartilage is avascular

e. There is nothing unique about the blood supply to cartilage

5.

Which type of cartilage is characterized by the presence of thick bundles of collagen fibers?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage**
- d. All of the above
- e. None of the above

6.

What percent of the matrix of cartilage is water?

- a. 0
- b. 10-40
- c. 40-60
- d. 60-80**
- e. 80-100

7.

Which type of cartilage forms the epiphyseal growth plate?

- a. Hyaline cartilage**
- b. Elastic cartilage
- c. Fibrocartilage
- d. All of the above
- e. None of the above

8.

What type of tissue makes up the rings of the trachea?

- a. Hyaline cartilage**
- b. Fibrocartilage
- c. Elastic cartilage
- d. Both a and b
- e. Both a and c

9.

What type of tissue makes up the epiglottis?

- a. Hyaline cartilage
- b. Fibrocartilage
- c. Elastic cartilage**
- d. Both a and b
- e. Both a and c

10.

Which type of cartilage is present in the temporomandibular joint?

- a. Hyaline cartilage
- b. Elastic cartilage

c. Fibrocartilage

- d. All of the above
- e. None of the above

11.

What structure is called yellow cartilage?

- a. Hyaline cartilage
- b. Elastic cartilage
- c. Fibrocartilage
- d. Compact bone
- e. Spongy bone



Bone

What is compact bone?

- a. Dense bone
- b. Woven bone
- c. Immature bone
- d. Cancellous bone
- e. Spongy bone

2.

What cell is involved in bone resorption?

- a. Osteoclast
- b. Osteon
- c. Osteocyte
- d. Osteoblast
- e. Osteoid

3.

What type of basic tissue type is bone?

- a. Epithelium
- b. Connective tissue
- c. Muscle
- d. Nervous
- e. Bone

4.

What is woven bone?

- a. Cancellous bone
- b. Compact bone
- c. Dense bone

d. Immature bone

e. Spongy bone

5.

What are the spicules on spongy bone called?

a. Canaliculi

b. Sharpey's fibers

c. Trabeculae

d. Tome's process

e. Lacuna

6.

Which cell type is responsible for bone breakdown?

a. Chondrocyte

b. Chondroblast

c. Osteocyte

d. Osteoclast

e. Bone lining cell

7.

What is bone formation called when the bone is formed directly, without using a cartilage template?

a. Intraosseous

b. En bloc

c. Intramembranous

d. Endochondral

e. Endosteum

8.

What forms the epiphyseal growth plate?

a. Elastic cartilage

b. Fibrocartilage

c. Hyaline cartilage

d. Compact bone

e. Spongy bone

9.

Which type of bone has spicules?

a. Immature bone

b. Dense bone

c. Compact bone

d. Cancellous bone

e. Woven bone

10.

What sits in a lacuna?

- a. Osteoclast
- b. Osteon
- c. Osteocyte**
- d. Osteoblast
- e. Osteoid



1.

What is dense bone?

- a. Immature bone
- b. Cancellous bone
- c. Compact bone**
- d. Woven bone
- e. Spongy bone

2.

Which cell is a resting osteoblast?

- a. Chondrocyte
- b. Chondroblast
- c. Osteocyte
- d. Osteoclast
- e. Bone lining cell**

3.

What are the mineral crystals in bone called?

- a. Hydroxyapatite**
- b. Calcite
- c. Tourmaline
- d. Rubellite
- e. Indicolite

4.

What is the cylindrical structure in compact bone?

- a. Osteoclast
- b. Osteon**
- c. Osteocyte
- d. Osteoblast
- e. Osteoid

5.

What are Sharpey's fibers?

- a. Elastic fibers
- b. Collagen fibers**
- c. Reticular fibers
- d. Trabeculae
- e. Dense regular connective tissue

6.

What is the space that an osteocyte rests in?

- a. Canaliculi
- b. Sharpey's fibers
- c. Trabeculae
- d. Tome's process
- e. Lacuna**

7.

What is bone formation called when the bone is formed from a cartilage template?

- a. Intraosseous
- b. En bloc
- c. Intramembranous
- d. Endochondral**
- e. Endosteum

8.

What is the primary component of red marrow?

- a. Hematopoietic tissue**
- b. Fat
- c. Cartilage
- d. Fibrous tissue
- e. Bone

9.

What cell is an immature bone cell?

- a. Osteoclast
- b. Osteon
- c. Osteocyte
- d. Osteoblast**
- e. Osteoid

10.

What is bundle bone?

- a. Cancellous bone
- b. Compact bone
- c. Dense bone

d. Spongy bone

e. Immature bone



1.

What is cancellous bone?

a. Dense bone

b. Woven bone

c. Immature bone

d. Compact bone

e. Spongy bone

2.

What cell is involved in laying down new bone?

a. Osteoclast

b. Osteon

c. Osteocyte

d. Osteoblast

e. Osteoid

3.

What is in the bone matrix?

a. Elastic fibers

b. Collagen fibers

c. Reticular fibers

d. Dense irregular connective tissue

e. Dense regular connective tissue

4.

What are the small tunnels seen in bone?

a. Canaliculi

b. Sharpey's fibers

c. Trabeculae

d. Tome's process

e. Lacuna

5.

What is the hollow area underneath an osteoclast called?

a. Space of Disse

b. Space of Mall

c. Vacuole

d. Lacuna

e. Howship's lacuna

6.

What is the covering of a bone?

- a. Perimysium
- b. Periosteum**
- c. Perichondrium
- d. Perineurium
- e. Endosteum

7.

What forms the articular surface on bones?

- a. Spongy bone
- b. Compact bone
- c. Hyaline cartilage**
- d. Elastic cartilage
- e. Fibrocartilage

8.

What is the primary component of yellow marrow?

- a. Hematopoietic tissue
- b. Fat**
- c. Cartilage
- d. Fibrous tissue
- e. Bone

9.

What is another term for the Haversian system?

- a. Osteoclast
- b. Osteon**
- c. Osteocyte
- d. Osteoblast
- e. Osteoid

10.

What is nonlamellar bone?

- a. Woven bone**
- b. Dense bone
- c. Cancellous bone
- d. Compact bone
- e. Spongy bone



1.

What is the mature bone cell called?

- a. Osteoclast
- b. Osteon
- c. Osteocyte**
- d. Osteoblast
- e. Osteoid

2.

What is immature bone?

- a. Dense bone
- b. Woven bone**
- c. Cancellous bone
- d. Compact bone
- e. Spongy bone

3.

What is unmineralized bone matrix?

- a. Osteoclast
- b. Osteon
- c. Osteocyte
- d. Osteoblast
- e. Osteoid**

4.

What are the collagen fibers that extend into bone at an angle called?

- a. Canaliculi
- b. Sharpey's fibers**
- c. Trabeculae
- d. Tome's process
- e. Lacuna

5.

Which cell is the mature bone cell?

- a. Chondrocyte
- b. Chondroblast
- c. Osteocyte**
- d. Osteoclast
- e. Bone lining cell

6.

What is the lining of the inner bone on the side which abuts the medullary cavity?

- a. Perimysium
- b. Periosteum
- c. Perichondrium

d. Perineurium

e. Endosteum

7.

What forms the skeleton of the fetus?

a. Elastic cartilage

b. Hyaline cartilage

c. Fibrocartilage

d. Spongy bone

e. Compact bone

8.

Which of the following is a multinucleated cell?

a. Osteoclast

b. Osteon

c. Osteocyte

d. Osteoblast

e. Osteoid

9.

What is spongy bone

a. Immature bone

b. Compact bone

c. Cancellous bone

d. Dense bone

e. Woven bone

