

Histology

ASM

A-Heart:

1. Which layer of the heart is composed of cardiac muscle?
 - a. Epicardium
 - b. Pericardium
 - c. Myocardium
 - d. Endocardium
 - e. Endomysium

2. Where is the myocardium the thickest?
 - a. Right atria
 - b. Left atria
 - c. Right ventricle
 - d. Left ventricle
 - e. Both right and left ventricle

3. What is the connective tissue sac surrounding the heart?
 - a. Epicardium
 - b. Pericardium
 - c. Myocardium
 - d. Endocardium
 - e. Endomysium

4. What is the connective tissue called which surrounds an individual cardiac muscle fiber?

- a. Epicardium
- b. Pericardium
- c. Myocardium
- d. Endocardium
- e. Endomysium

5. What is the pacemaker of the heart?

- a. Sinoatrial node
- b. Atrioventricular node
- c. Bundle of His
- d. Right bundle branch
- e. Purkinje fiber

6. Which of the following is not true regarding the endocardium?

- a. The endocardium contains abundant adipose tissue
- b. The endocardium is layered
- c. The endocardium contains blood vessels
- d. The endocardium contains smooth muscle
- e. The endocardium is lined by endothelium

7. What is the atrioventricular bundle?

- a. Sinoatrial node
- b. Atrioventricular node
- c. Bundle of His
- d. Right bundle branch
- e. Purkinje fiber

8. Where is endothelium located?

- a. Epicardium
- b. Pericardium
- c. Myocardium

- d. Endocardium
- e. Endomysium

9. "pulling on heart strings" refers to strong feelings of love or sympathy pulling one's conscience
this anatomical structure refers to

- a. sinoatrial node
- b. bundle of his
- c. right bundle branch
- d. purkinje fiber
- e. chorda tendinae

10. Where are the blood vessels which supply the heart located?

- a. Epicardium
- b. Pericardium
- c. Myocardium
- d. Endocardium
- e. Endomysium

II) -Blood Vessels

1. At what level of the vascular tree does gas exchange occur?

- a. Capillary
- b. Arteriole
- c. Venule
- d. Elastic artery
- e. Muscular artery

2. Which layer in an artery is primarily skeletal muscle?

- a. Tunica intima
- b. Tunica media
- c. Tunica externa
- d. All of the above
- e. None of the above

3. Which of the following is NOT a distinguishing feature between larger veins and arteries?

- a. Veins have valves whereas arteries do not have valves
- b. The tunics in veins are not as clearly delimited as are the tunics in arteries
- c. The walls in veins are thinner than the walls in arteries
- d. The lumen of a vein is smaller than the lumen of an artery
- e. None. All of the above are true

4. In which structure are things moved across the epithelium via pinocytotic vesicles?

- a. Continuous capillaries
- b. Fenestrated capillaries
- c. Sinusoidal capillaries
- d. AV anastomoses
- e. Venous sinus

5. What is a thoroughfare which is an intermediate between an arteriole and capillary?

- a. Metcapillary X
- b. Metartery
- c. Metvenule
- d. Metarteriole
- e. None of the above

6. Which layer in an artery contains the endothelium?

- a. Tunica intima
- b. Tunica media
- c. Tunica externa

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

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

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

8. In which of the following is a portal system NOT found?

- a. Kidney
- b. Liver
- c. Muscle
- d. Brain
- e. None of the above is correct; a portal system is found in all of the above

9. What is the brachial artery?

- a. Capillary
- b. Arteriole
- c. Venule
- d. Elastic artery
- e. Muscular artery

10. Which of the following is a distinct structure found specifically in the liver, spleen, and bone marrow?

a. Continuous capillaries

b. Fenestrated capillaries

c. Sinusoidal capillaries

d. AV anastomoses

e. Venous sinus

I-B)Heart:

1) The layer uniting the myocardium with the subendothelial layer is

- a) Endothelial layer
- b) Subendocardial layer**
- c) Subepicardial layer
- d) Non of the above

2) The epicardium forms the visceral layer of pericardium

- a) True**
- b) False

3) Concerning the cardiac valves which of the following is true

- a) They are folds of the endocardium**
- b) Their core is of dense vascular C.T
- c) They are a modified cardiac muscle
- d) Non of the above

4) The base for the cardiac valves is called

a) Myocardium

b) Cardiac muscle fibers

c) Fibrous skeleton of the heart

d) Non of the above

5) The cardiac muscle structure corresponding to the endomysium of the skeletal muscle is

) collagen and elastic fibers between bundles of cardiac muscle fibers

) A net of reticular fibers and fine elastic fibers between bundles of cardiac muscle fibers

c) A net of reticular fibers and fine collagen fibers surrounding each muscle fiber

6) Concerning the cardiac muscle fibers

a) Long cylindrical fibers with branches and anastomoses

b) Fainter striations

c) Cardiomyocytes are joined end to end by intercalated discs

d) All of the above

7) Fainter striations of the cardiac muscle fibers is due to

a) Lesser myofibrils in the cardiac fibers

b) The branching and anastomoses of the myofibrils

c) The myofibrils are not perfectly in register with one

another

d) b&c

8) The following is not true concerning T tubules of the cardiac muscle fibers EXCEPT

- a) Smaller than those of skeletal muscle fibers
- b) There are 2 T tubules per sarcomere
- c) Facilitate access of ca from the extra cellular space
- d) Associated from both sides with saccules of the sarcoplasmic reticulum

9) Concerning the intercalated discs

- a) They have a transverse portion and oblique portion
- b) Contain only one type of intercellular junction
- c) Allow separation of cardiomyocytes during contraction
- d) Non of the above

10) The desmosomes resemble the macula adherence of epithelial cells in

- a) The attached intermediate filaments are desmin
- b) They both give attachment to intermediate filaments
- c) a&B

11) The intercellular junction in the longitudinal portion of the intercalated discs are

- a) Macula adherence

- b) Fascia adherence
- c) Gap junction
- d) A & B

12) In comparison with the skeletal muscle fibers, the cardiac fibers have

- a) More and larger mitochondria
- b) More glycogen granules
- c) Lipid droplets
- c) All of the above

Answers :

1	B	5	C	9	D
2	A	6	D	10	B
3	A	7	D	11	C
4	c	8	C	12	C

1) Blood Vessels

1- The layer of the blood vessel that is related to the function of the vessel is the

- a) Tunica intima
- b) Tunica media
- c) Tunica advebtitia
- d) Non of the above

2- In the tunica intima, the condensation of the elastic element externally forming

- a) The endothelium

- b) Sub endothelium
- c) Internal elastic lamina
- d) External elastic lamina

3- The vasa vasora is present in the

- a) Tunica intima
- b) Tunica media
- c) Tunica adventitia
- d) Non of the above

4- The tunica adventitia is more thick in the

- a) Large artery
- b) Medium sized artery
- c) Arterioles

5) The pulmonary arteries contain than other arteries of the same size

- a) Less muscular and elastic tissue
- b) More muscular and elastic tissue
- c) More muscular but less elastic
- d) Less muscular but more elastic

6) In the large arteries , which of the following is responsible for the production of the elastic lamellae and extracellular component ??

- a) The endothelium of the tunica intima
- b) The smooth muscles in the tunica media
- c) The amorphous ground substance of the tunica media
- d) Non of the above

7) The number and thickness of the elastic laminae is related to the

- a) Size of the artery
- b) Type of the vessel
- c) Age and blood pressure
- d) Non of the above

8) The subendothelium contain smooth muscle in which of the following

- a) Large elastic artery
- b) Medium sized artery
- c) Arterioles
- d) All of the above

9) The internal and external elastic lamina is well defined and evident in the

- a) Large elastic artery
- b) Medium sized artery
- c) Arterioles
- d) Non of the above

10- All of the following characteristic of the arterioles Except:

- a) thick wall & narrow lumen.
- b) its diameter 100 μ or less .
- c) has external elastic lamina.
- d) the media is formed of 2 layers of smooth muscles.

11- Weibel-palade granules contain:

- a) Factor II.
- b) Factor III.
- c) Factor VIII.
- d) non of the above.

12) Tunica media in large veins forms :

- a) 50%.
- b) 70%.
- c) 10%.
- d) 30%.

13) All of the following about tunica adventitia in large veins Except:

- a) forms 70%.
- b) consists of fibro-elastic C.T
- c) longitudinal-arranged smooth muscle.
- d) longitudinal collagens fibers.

14) Which of the following vessels contain cardiac muscle :

- a) Tunica adventia of large veins.
- b) pulmonary arteries.
- c) all of the above.

15) Medium-sized vein contain elastic fibers:

- a) True.
- b) False.



16) Tunica intima well developed in:

- a) large veins.
- b) medium-sized vein.
- c) medium –sized artery.
- d) a&c.

18) Tunica media forms 50% in :

- a) medium-sized vein.
- b) medium-sized artery.
- d) large artery. X
- e) large vein.

19) All of the following are True about valves of veins Except:

- a) permit the flow of blood in one direction,toward the heart.
- b) abundant in veins of extremities.
- c) present in veins of thorax &abdomen.

20) 1-2 layers of smooth muscles in tunica media present in:

- a) Arterioles.
- B)Muscular venules.

C) all of the above

21) the diameter of the capillary is about

a) 5-10 μm

b) 7-9 μm

c) 9-12 μm

d) 12-15 μm X

22) according to capillary , the single layer of flat endothelial cells is held together by

a) anchoring junction

b) adhering junction

c) communicating junction

d) tight junction

23) according to the met arterioles

a) the resemble wide arterioles

b) the have double layers of endothelial lining

c) the supply many capillaries

d) they contain continuous layer of smooth muscle fiber

24) all of the following are true according to the pericytes except

a) they are mesenchymal cells

b) they completely surround the endothelial cells

- c) they have long cytoplasmic processes
- d) they help in the repair process

25) type 1 capillaries are found in the

- a) lung
- b) endocrine glands
- c) intestine
- d) glomeruli

26) the type 2 capillaries are found in the following sites except

- a) intestine
- b) endocrine glands
- c) skin
- d) glomeruli

27) which type of capillaries enter the structure of the blood brain barrier

- a) muscle type
- b) visceral type
- c) sinusoids
- d) metarterioles

28) the diameter of the lumen of the blood sinusoids is about

- a) 30 μ or more
- b) 20 μ or more
- c) 10 μ or more
- d) 5 μ X

29).....are
contractile

- a) muscle capillaries
- b) visceral capillaries
- c) blood sinusoids
- d) A-V shants

30) Are found in large lymphatic vessels but not found in the A-V shants

- a) collagen fibers
- b) elastic fibers
- c) reticular fibers
- d) type 1 collagen fibers.

Answers

1	B	7	C	13	D	19	C	25	c
2	C	8	A	14	C	20	C	26	A
3	C	9	B	15	B	21	D	27	A
4	B	10	C	16	D	22	C	28	D

5	A	11	C	17	B	23	B	29	D
6	b	12	D	18	C	24	A	30	B