Blood multiple question

1. In which circulation do the arteries carry mainly oxygenated blood?

A. pulmonary circulation of adults

B. systemic circulation of adults

C. fetal circulation

D. none of the above

2. Assuming that a thrombus was formed in the femoral vein, it would most likely become lodged in a capillary bed of the

A. spleen B. bone marrow C. brain D. lungs E. aorta

3. The very first branches of the ascending aorta supply blood to the:

A. right shoulder and right side of head

B. myocardium of the heart

C. left side of head

D. left shoulder and left arm

E. all of the above

4. Which of the following vessels carries mainly dexoygenated blood?

A. pulmonary artery.

B. pulmonary vein.

C. systemic aorta.

D. coronary artery.

E. pulmonary venules.

5. In what way or ways is/are the pulmonary trunk different from the Ascending aorta. It:

A. has no branches to the myocardium of the heart

B. carries blood to the bronchial arteries, which supply the bronchial tree of the lung

C. has a blood pressure only 1/5 of the systemic aorta

D. all of the above

E. A and C only

6. Which of the following vessels and chambers are involved in pulmonary circulation?

A. inferior venae cavae, superior venae cavae, right atrium.

B. right ventricle, tricuspid valve, left atrium.

C. right ventricle, pulmonary artery, left atrium.

D. inferior venae cavae, right atrium, left atrium.

7. Which of the following is/are a TRUE statement?

A. the apex of the heart is located at the base of the heart.

B. the hepatic portal system delivers blood to the digestive tract from the liver.

C. the coronary sinus is a dilated vein in the cranial cavity.

D. the heart has six chambers which include the two ventricles, the two atria and the two auricles.

E. the lungs receive blood from both the pulmonary and systemic Circulations.

8. The pulmonary arteries:

A. supply blood to the parenchyma of the lungs

B. carry blood low in oxygen to the lungs

C. carry blood high in oxygen back to the heart

D. carry blood low in carbon dioxide to the lungs

9. Heart muscle receives its blood supply directly from the

A. aorta

B. pulmonary arteries

C. brachiocephalic artery

D. foramen ovale

E. coronary arteries

10. Most of the veins of the myocardium drain directly into the:

A. coronary sinus

B. hepatic and splenic sinuses

C. aorta

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E. left ventricle

11. The return flow from the mesenteric veins forms the:

A. inferior vena cava

B. azygos vein

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E. renal portal system

12. The hepatic portal system differs from the systemic circulation be- cause the former drains blood from the intestines, stomach, pancreas and other digestive organs, carrying blood to the __?__ before returning it to the inferior vena cava.

A. superior vena cava

B. liver

C. pulmonary arteries

D. lungs

E. none of the above

13. Which of the following is NOT a "portal system" of the human body?

A. Hypothalamo-hypophyseal portal system.

B. Renal portal system.

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14. Which are routes for blood flow in the pulmonary circulation?

A. superior vena cava, right atrium, and left ventricle

B. inferior vena cava, right atrium and left ventricle

C. right ventricle, pulmonary artery, pulmonary cap bed, pulmonary vein

D. left ventricle aorta and inferior vena cava

15. The superior mesenteric artery is a branch of the:

A. inferior mesenteric artery

B. hepatic artery

C. celiac artery

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E. ascending aorta

16. Blood which leaves the liver and moves to the heart has a higher than usual concentration of which of the following?

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19. Blood coming to the liver comes from the __?__ vein and the __?__ artery.

A. celiac - celiac

B. hepatic - hepatic

C. hepatic portal - hepatic

D. hepatic - hepatic portal

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20. The aorta and other arteries have thick walls containing large quantities of

A. hyaline cartilage

B. elastic tissue

C. valves

D. lymph nodes

E. all of the above

21. A single layer of endothelium is found in the --?-- of an artery.

A. tunica intima B. tunica media C. tunica externa

22. The bulky, middle coat, containing smooth muscle and elastin, is the --?-- of an artery.

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25. Which statements best describes arteries?

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26. Arterioles carry their blood into __?__, then into __?__.

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27. Blood leaves the liver via the:

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E. A and D only.

28. The thickest layer of tissue in arteries is the tunica --?--.

A. intima B. media C. adventitia D. serosa E. externa

29. Which vessel is"first"out of order in this sequence, starting with the left coronary artery?

A. coronary arterioles

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30. If a person has an "angiospasm", what part of his or her body would be affected?

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31. The tunica media of a small artery:

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34. Valves preventing backflow of circulatory fluid occur in:

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35. With reference to veins

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Blood question

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B. ductus venosum

C. portal circulation

D. placenta

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2. At any moment, more than half of the blood in the circulation may be found within the:

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A. not exist in the human body

B. collapse easily

C. would only have an intima layer

D. run parallel only to arteries and veins

E. have a high velocity of blood flow

9. Which of the following are greatest in numbers in the human body?

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B. small arteries

C. capillaries

D. Large veins

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10. The __?__ are cells which are found as the inner most layer within the circulatory system.

A. endothelium B. myocardium C. media D. adventitia

11. In the sequence of vessels leading away from the heart, which of the following is the most accurate description?

A. venule, vein, vena cava, aorta, artery

B. aorta, capillary, vein

C. aorta, artery, arteriole, capillary bed, venule, vein, vena cava

D. arteriole, venule, artery, vein, aorta, vena cava

E. none of the above

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C. a large venule

D. Capillary

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14. The __?__ is a superficial vein on the lateral surface of the leg.

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B. lateral thigh vein

C. subcutaneous vein

D. great saphenous vein

E. lesser tibial vein

15. Because of its location near the surface of the front of the elbow one of the veins frequently used for removing blood for testing is the:

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B. median cubital vein

C. hepatic vein

D. radial artery

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16. The two major arteries of the lower leg are the _____ artery and the _____ artery.

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B. femoral - popliteal

C. femoral - saphenous

D. tibial - fibular

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17. The capillary wall is impermeable to which of the following?

A. H2O.

B. sodium.

C. HCO3.

D. plasma proteins.

18. Veins can accommodate larger volumes of blood with little increase of internal pressure because:

A. veins have valves.

B. veins are distensible.

C. walls are thin.

D. B and C only

19. In the renal portal system,

A. blood high in waste materials is filtered by the kidney and excreted through the urine.

B. blood is filtered at the glomerulus and most of it reabsorbed at the peritubular capillary beds

C. urine is filtered at the first capillary bed and secreted from the second capillary bed.

D. all of the above

E. B and C only

20. Venous sinuses are found in the:

A. spleen

B. heart

C. liver

D. penis

E. all of the above.

21. Which statement about capillaries is NOT TRUE ?

A. capillaries are microscopic vessels whose walls are one cell thick

B. blood pressure is lowest in capillaries.

C. velocity of blood flow is slowest in capillaries.

D. many capillaries are smaller than whole cells.

E. all of the above

22. The aorta

A. arises from the right ventricle

B. is larger in caliber than the pulmonary trunk

C. both A and B

D. neither A nor B

23. Which statement is NOT TRUE of veins?

A. they have less elastic tissue and smooth muscle than arteries

B. they contain more fibrous tissue than arteries

C. most veins in the extremities have valves

D. they always carry dexoygenated blood

E. they have a larger blood holding capacity than arteries

24. Which of the following arteries has no vein by its same name?

A. pancreatic artery

B. celiac artery

C. hepatic artery

D. superior mesenteric artery

E. gastric artery

25. Coming off the aortic arch is a short artery formerly called the innominate artery. This is the:

A. phrenic artery

B. descending aorta

C. brachiocephalic artery

D. common iliac artery

E. left common carotid artery

26. Which of the following vessels is superior to the diaphragm?

A. vertebral artery

B. spermatic artery

C. right renal vein

D. celiac axis

E. cisterna chyli

27. The inferior mesenteric artery is an example of an artery that is:

A. unimportant

B. unpaired

C. part of an anastomosis

D. loaded with valves

E. part of an arterial sinus

28. The branch of the brachial artery that extends down the forearm and wrist of the thumb side is the:

A. mesenteric artery

B. celiac trunk

C. radial artery

D. basilar artery

E. ulnar artery

29. Which of the following is NOT a division of the systemic aorta?

A. superior

B. arch

C. descending

D. thoracic

E. abdominal

30. Which of the following vessels supplies blood to the small intestines

A. renal artery

B. superior mesenteric artery

C. gastric artery

D. spermatic artery

E. superior intestinal artery

31. Oxygenated blood is carried to the liver principally by way of the:

A. hepatic artery

B. hepatic vein

C. hepatic portal artery

D. all of the above

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32. Which of the following is(are) branch(es) from the aortic arch:

A. Brachiocephalic artery.

B. Left common carotid artery.

C. Left subclavian artery.

D. All of the above.

E. None of the above.

33. The longest vein in the body, a superficial vein of the leg and thigh is subject to enlargement called varicose veins. It is the:

A. femoral B. popliteal C. saphenous D. tibial E. iliac

34. One of the unpaired arteries that supplies some of the viscera of the upper abdomen is a short trunk, the:

A. gastric B. renal C. innominate D. celiac E. hepatic

35. A single layer of flat cells which line the blood vessels is classified as:

A. mesothelium

B. endothelium

C. endocardium

D. endometrium

E. pericardium

36. Hepatic sinuses deliver blood to the --?--, which then empty into the --?--.

A. hepatic veins - inferior vena cava

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A. ascending aorta

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40.Each brachiocephalic vein is formed by the union of the __?__ veins.

A. internal and external jugular

B. brachial and cephalic

C. radial and ulnar

D. subclavian and internal jugular

BLOOD VESSELS-2 ANSWERS

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A. blood high in waste materials is filtered by the kidney and excreted through the urine.

B. blood is filtered at the glomerulus and most of it reabsorbed at the peritubular capillary beds

C. urine is filtered at the first capillary bed and secreted from the second capillary bed.

D. all of the above

E. B and C only

20. Venous sinuses are found in the:

A. spleen

B. heart

C. liver

D. penis

E. all of the above.

21. Which statement about capillaries is NOT TRUE ?

A. capillaries are microscopic vessels whose walls are one cell thick

B. blood pressure is lowest in capillaries.

C. velocity of blood flow is slowest in capillaries.

D. many capillaries are smaller than whole cells.

E. all of the above

22. The aorta

A. arises from the right ventricle

B. is larger in caliber than the pulmonary trunk

C. both A and B

D. neither A nor B

23. Which statement is NOT TRUE of veins?

A. they have less elastic tissue and smooth muscle than arteries

B. they contain more fibrous tissue than arteries

C. most veins in the extremities have valves

D. they always carry dexoygenated blood

E. they have a larger blood holding capacity than arteries

24. Which of the following arteries has no vein by its same name?

A. pancreatic artery

B. celiac artery

C. hepatic artery

D. superior mesenteric artery

E. gastric artery

25. Coming off the aortic arch is a short artery formerly called the innominate artery. This is the:

A. phrenic artery

B. descending aorta

C. brachiocephalic artery

D. common iliac artery

E. left common carotid artery

26. Which of the following vessels is superior to the diaphragm?

A. vertebral artery

B. spermatic artery

C. right renal vein

D. celiac axis

E. cisterna chyli

27. The inferior mesenteric artery is an example of an artery that is:

A. unimportant

B. unpaired

C. part of an anastomosis

D. loaded with valves

E. part of an arterial sinus

28. The branch of the brachial artery that extends down the forearm and wrist of the thumb side is the:

A. mesenteric artery

B. celiac trunk

C. radial artery

D. basilar artery

E. ulnar artery

29. Which of the following is NOT a division of the systemic aorta?

A. superior

B. arch

C. descending

D. thoracic

E. abdominal

30. Which of the following vessels supplies blood to the small intestines

A. renal artery

B. superior mesenteric artery

C. gastric artery

D. spermatic artery

E. superior intestinal artery

31. Oxygenated blood is carried to the liver principally by way of the:

A. hepatic artery

B. hepatic vein

C. hepatic portal artery

D. all of the above

E. B and C only

32. Which of the following is(are) branch(es) from the aortic arch:

A. Brachiocephalic artery.

B. Left common carotid artery.

C. Left subclavian artery.

D. All of the above.

E. None of the above.

33. The longest vein in the body, a superficial vein of the leg and thigh is subject to enlargement called varicose veins. It is the:

A. femoral B. popliteal **C. saphenous** D. tibial E. iliac

34. One of the unpaired arteries that supplies some of the viscera of the upper abdomen is a short trunk, the:

A. gastric B. renal C. innominate **D. celiac** E. hepatic

35. A single layer of flat cells which line the blood vessels is classified as:

A. mesothelium

B. endothelium

C. endocardium

D. endometrium

E. pericardium

36. Hepatic sinuses deliver blood to the --?--, which then empty into the --?--.

A. hepatic veins - inferior vena cava

B. superior mesenteric vein - hepatic portal vein

C. inferior mesenteric vein - hepatic portal vein

D. innominate veins - superior vena cava

E. femorals - common iliac vein

37. Which of the following vessels carries mainly dexoygenated blood?

A. pulmonary artery

B. pulmonary vein

C. systemic aorta

D. coronary artery

E. pulmonary venules.

38. The superior mesenteric artery:

A. is a branch of the aorta

B. supplies the small intestine

C. both A and B

D. neither A nor B

39. The right subclavian artery is a branch of the:

A. ascending aorta

B. innominate artery

C. axillary artery

D. pulmonary vein

E. aortic arch

40.Each brachiocephalic vein is formed by the union of the __?__ veins.

A. internal and external jugular

B. brachial and cephalic

C. radial and ulnar

D. subclavian and internal jugular

Blood question

1. The two _____ veins join together to form the superior vena cava.

A. blue

B. jugular

C. carotid

D. brachiocephalic

E. cavil

2. An obstruction in the inferior vena cava would hamper the return of blood from the:

A. head and neck

B. upper extremities

C. abdomen and pelvis

D. lower extremities

E. both C and D

3. The hepatic veins empty into the:

A. portal vein

B. superior mesenteric vein

C. superior vena cava

D. inferior vena cava

4. The pancreatic vein drains blood from the -- ?-- and sends it to the --?--.

A. pancreas - heart

B. spleen - liver

C. pancreas - spleen

D. liver - heart

E. pancreas - liver

5. Which of the following is NOT part of the "portal system" of veins in the abdomen?

A. hepatic B. superior mesenteric C. splenic D. portal E. gastric

6. The blood from the parts of the body below the diaphragm is drained by the large vein called the:

A. venous sinuses

B. abdominal vena cava

C. superior vena cava

D. descending aorta

E. diaphragmatic vein

7. The hepatic vein carries blood:

A. from the celiac artery to the liver

B. from the stomach to the liver

C. from the small intestines to the liver

D. from the pancreas and spleen to the liver

E. from the liver to the inferior vena cava

8. The gastric vein empties blood directly into the _____

A. hepatic vein

B. hepatic portal vein

C. inferior vena cava

D. azygos vein

9. The __?__ vein carries blood from the liver to the inferior vena cava.

A. hepatic B. cavil C. hepatic portal D. mesenteric E. gastric

10. In arteries, __?__ is made mainly of elastic fibers and smooth muscle.

A. the tunica media

B. the tunica intima

C. the tunica adventitia

D. voluntary muscle component

E. endothelium

11. A drop of blood is in the hepatic portal vein. It will next enter:

A. Hepatic vein.

B. Hepatic sinusoids.

C. Hepatic artery.

D. Superior mesenteric vein.

E. Capillaries of the villi.

12. The circular anastomosis around the pituitary gland at the base of the brainstem is called the:

A. Columbus Circle

B. circle of Willis

C. Dupont Circle

D. Thomas Circle

E. Chevy Chase Circle

13. The vein that drains most of the small intestine and the first part of the large intestine is the:

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B. inferior mesenteric vein

C. splenic vein

D. hepatic vein

E. common iliac vein

14. The arteries and veins are similar in that they both:

A. have muscle in their walls

B. carry or transport blood

C. have semi-lunar shaped valves

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15. The basilar artery supplies the:

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B. cranium

C. base of the neck

D. base of the heart

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16. In tracing the blood to the brain, the blood leaves the left ventricle by way of the aorta, then up through the right common Carotid artery and finally through the right internal carotid artery To the brain. What vessel is missing in this series?

A. right coronary artery

B. innominate or brachiocephalic artery

C. right subclavian artery

D. right external carotid artery

E. thoracic aorta

17. Which of the following veins does NOT empty into hepatic portal vein?

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B. superior mesenteric vein

C. inferior mesenteric vein

D. renal vein

E. cystic vein(frm gall bladder)

18. In the midline above the brain and in the fissure between the 2 cerebral hemispheres is a long blood-containing space called the:

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D. frontal sinus

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19. The union of the 2 vertebral arteries forms the:

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B. posterior cerebral artery

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20. Tributaries from the unpaired organs empty into a vein that enters the liver where it subdivides into smaller veins. This unusual vein Is called the:

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B. hepatic vein

C. portal-hepatic vein

D. mesenteric vein

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21. An anastomosis of the 2 internal carotid arteries and the basilar artery is located immediately under the center of the brain. It is called the:

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B. internal anastomoses

C. cerebral ring

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B. internal jugular

C. external jugular

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23. The two internal carotid arteries and the vertebral artery bring blood into the _____

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A. at the base of the brain, encircling the pituitary gland

B. in the axillary region of the arm

C. just below the diaphragm, near the entrance to the liver

D. between the duodenum and the jejunum of the small intestine

E. none of the above

27. The popliteal arteries are examples of many vessels that are:

A. palpable

B. paired

C. both A and B

D. Neither A nor B

28. A drop of blood is flowing through the vertebral artery. Which organ will it next enter?

A. Brain B. liver C. kidney D. stomach E. base of spine

29. Which of the following is/are TRUE about arterial capillaries?

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30. Which of the following is NOT an artery from which the pulse can be taken?

A. right common carotid artery

B. temporal artery

C. radial artery

D. femoral artery

E. celiac artery

31. The circle of Willis is an arterial anastomosis of the

A. brain

B. thyroid

C. lung

D. upper extremity

E. none of above

32. The celiac artery delivers blood to the:

A. Diaphragm.

B. Large intestine.

C. Liver, spleen, pancreas, stomach and gall bladder

D. Adrenal glands.

33. The areas supplied by the carotid arteries are drained by the:

A. portal veins

B. jugular veins

C. basilar arteries

D. venous sinuses of the skull

E. median cubital veins

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38. What is"unusual"about the subclavian and axillary arteries?

A. they have more than 3 branches each

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C. they are continuations of the artery proximal to them

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39. Where is the arterial circle of Willis? It is:

A. In the circle around the stomach made by the celiac and gastric Arteries

B. in the pelvis around the umbilicus

C. inside Willis

D. Next to the venous circle of Willis

E. at the base of the brain

40. Tracing the blood from the heart to the right hand we find that the blood leaves the heart and passes up through the ascending aorta, the right subclavian artery, the axillary and brachial arteries and though either the radial or the ulnar artery to arrive at the hand. Which artery is missing from this

A. right common carotid

B. coronary

C. brachiocephalic

D. cephalic

E. pulmonary

BLOOD VESSELS-3 ANSWERS

1. The two _____ veins join together to form the superior vena cava.

A. blue

B. jugular

C. carotid

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2. An obstruction in the inferior vena cava would hamper the return of blood from the:

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C. inside Willis

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B. coronary

C. brachiocephalic

D. cephalic

E. pulmonary

---

1. Which of the following is a superficial vein on the medial surface of the arm?

A. brachial

B. radial

C. cephalic

D. basilic

2. The pulse can be felt from any of the following vessels except:

A. carotid

B. radial

C. dorsal pedal

D. saphenous

E. popliteal

3. Unpaired veins coming mostly from the digestive tract are drained by a special vein called the:

A. gastric vein

B. inferior vena cava

C. cavernous sinuses

D. hepatic portal vein

4. Which of the following statements is false?

A. arteries have much elastic tissue in the media

B. the portal vein carries the end products of digestion to the Sinusoids of the liver.

C. veins contain valves; arteries do not.

D. endocarditis is an inflammation of the pericardium of the heart.

E. all of the above are false

5. The external iliac arteries extend into the thigh; here each becomes a:

A. vein

B. femoral artery

C. celiac trunk

D. paired artery

E. unpaired vein

6. Which of the following is/are characteristics of arteries?

A. contractility B. elasticity C. Both A and B D. Neither A nor B

7. Which of the following vessels cannot be palpated for the arterial pulse?

A. celiac trunk

B. circle of Willis

C. vertebral artery

D. ascending aorta

E. all of the above

8. The longest vein is the superficial one called the:

A. inferior vena cava

B. jugular vein

C. portal vein

D. great saphenous vein

E. subclavian vein

9. Veins are vessels which:

A. carry blood to the organs of the body.

B. always carry reduced (dexoygenated) blood in the human body.

C. have a comparatively larger lumen than arteries.

D. are always blue in color.

E. have a comparatively smaller lumen than arteries.

10. The internal elastic lamina separates the:

A. tunica intima from the tunica externa

B. the tunica externa from the tunica media

C. the tunica media from the mesothelium

D. the tunica intima from the tunica media

11. If a blood vessel has a diameter of less than 0.5 mm, a small lumen, and a relatively thick tunica media made of mostly smooth muscle, The vessel is a/an:

A. elastic artery b. distributing artery C. venule D. arteriole

12. Which of the following vessels are a part of the "circle of Willis"?

A. anterior cerebral artery

B. posterior communicating artery

C. basilar artery

D. all of the above

E. A and B only

13. If a blood vessel has a wall made up of an endothelium and a basement membrane, and if the diameter of that vessel is about that of a red blood cell, then that vessel is probably a/an:

A. venule B. muscular artery C. capillary D. arteriole

14. Which one of the following is NOT TRUE of the valves in veins?

A. they are most common in the veins of the lower limbs

B. they have the same shape as the AV valves

C. they are folds of the tunica intima

D. they keep the blood in veins from flowing backwards away from the heart

15. Which of the following is "not" characteristic of capillaries?

A. they are composed only of endothelium.

B. their blood pressure is the lowest of all vessels.

C. they possess a tremendous total surface area.

D. they are the site of gaseous exchange with the tissues.

16. With the progressive change from capillaries to venules to veins, which one of the following statements is incorrect?

A. the diameters of the individual vessels increase

B. the total cross-sectional area increases

C. the thickness of the vessel walls increases

D. the blood pressure decreases

17. Which one of the following statements is CORRECT ?

A. pulmonary arteries carry oxygenated blood

B. pulmonary veins carry blood high in carbon dioxide

C. the pulmonary arteries take blood to the left atrium

D. the pulmonary vessels do not supply oxygen to the lung tissue itself

18. Veins from the spleen, pancreas, stomach and intestines send their blood to the liver by means of tributaries of the:

A. hepatic veins

B. hepatic portal vein

C. mesenteric vein

D. hepatic artery

E. cisterna chili

19. The innermost "tunic" of an artery or vein is called its:

A. intima B. media C. adventitia D. epicardium e epithelium

20. A large blood vessel with valves and possessing a very thick tunica adventitia would

probably be a:

A. large artery

B. large vein

C. a large venule

D. A small artery

21. The part of the circulatory system with the greatest"total cross- sectional area"is the

A. capillaries B. arterioles C. large arteries D. small veins

22. The left gastric, hepatic and splenic arteries all branch off the _____ artery.

A. descending aortic

B. renal

C. pancreatic

D. celiac

E. portal

23. When tracing blood from the heart thru the liver and back to the heart, blood passes thru the following vessels: arch of the aorta, Descending aorta, celiac artery, hepatic artery, capillary network of Liver, inferior vena cava, and right atrium. Which of the following Has been omitted from the series?

A. hepatic portal vein

B. splenic vein

C. portal artery

D. hepatic vein

E. coronary vein

24. The two anterior arteries, the anterior communicating artery, the two posterior arteries and the posterior communicating artery form the:

A. portal system

B. circle of Willis

C. Columbus Circle

D. volar arch of the hand

E. Thomas Circle

25. The superior sagittal sinus and the transverse sinus are:

A. veins

B. arteries

C. Both A and B

D. Neither A nor B

26. In which of the following blood vessels can the pulse be felt most easily?

A. aorta

B. pulmonary trunk

C. external carotid artery

D. superior vena cava

E. coronary artery at the apex of the heart

27. The __?__ vein is the major deep vein of the thigh.

A. leg-work B. popliteal C. inguinal D. hip E. femoral

28. Which one of the following terms does NOT belong with the others?

A. tunica externa

B. tunica intima

C. basement membrane

D. endothelium

29. If a blood vessel has a wall composed of an endothelium, a basement membrane, and a few smooth muscle fibers, then the vessel is probably a/an:

A. venule B. capillary C. arteriole D. distributing artery

30. The superior mesenteric vein drains blood from the __?__ and sends it to the __?__ vein.

A. rectum - inferior mesenteric

B. small intestine - hepatic portal vein

C. pancreas - portal

D. liver - hepatic

E. mesentery - hepatic

BLOOD VESSELS-4 ANSWERS

1. Which of the following is a superficial vein on the medial surface of the arm?

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C. cephalic

D. basilic

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E. subclavian vein

9. Veins are vessels which:

A. carry blood to the organs of the body.

B. always carry reduced (dexoygenated) blood in the human body.

C. have a comparatively larger lumen than arteries.

D. are always blue in color.

E. have a comparatively smaller lumen than arteries.

10. The internal elastic lamina separates the:

A. tunica intima from the tunica externa

B. the tunica externa from the tunica media

C. the tunica media from the mesothelium

D. the tunica intima from the tunica media

11. If a blood vessel has a diameter of less than 0.5 mm, a small lumen, and a relatively thick tunica media made of mostly smooth muscle, The vessel is a/an:

A. elastic artery b. distributing artery C. venule **D. arteriole**

12. Which of the following vessels are a part of the "circle of Willis"?

A. anterior cerebral artery

B. posterior communicating artery

C. basilar artery

D. all of the above

E. A and B only

13. If a blood vessel has a wall made up of an endothelium and a basement membrane, and if the diameter of that vessel is about that of a red blood cell, then that vessel is probably a/an:

A. venule B. muscular artery **C. capillary** D. arteriole

14. Which one of the following is NOT TRUE of the valves in veins?

A. they are most common in the veins of the lower limbs

B. they have the same shape as the AV valves

C. they are folds of the tunica intima

D. they keep the blood in veins from flowing backwards away from the heart

15. Which of the following is "not" characteristic of capillaries?

A. they are composed only of endothelium.

B. their blood pressure is the lowest of all vessels.

C. they possess a tremendous total surface area.

D. they are the site of gaseous exchange with the tissues.

16. With the progressive change from capillaries to venules to veins, which one of the following statements is incorrect?

A. the diameters of the individual vessels increase

B. the total cross-sectional area increases

C. the thickness of the vessel walls increases

D. the blood pressure decreases

17. Which one of the following statements is CORRECT ?

A. pulmonary arteries carry oxygenated blood

B. pulmonary veins carry blood high in carbon dioxide

C. the pulmonary arteries take blood to the left atrium

D. the pulmonary vessels do not supply oxygen to the lung tissue itself

18. Veins from the spleen, pancreas, stomach and intestines send their blood to the liver by means of tributaries of the:

A. hepatic veins

B. hepatic portal vein

C. mesenteric vein

D. hepatic artery

E. cisterna chili

19. The innermost "tunic" of an artery or vein is called its:

A. intima B. media C. adventitia D. epicardium e epithelium

20. A large blood vessel with valves and possessing a very thick tunica adventitia would probably be a:

A. large artery

B. large vein

C. a large venule

D. A small artery

21. The part of the circulatory system with the greatest"total cross- sectional area"is the

A. capillaries B. arterioles C. large arteries D. small veins

22. The left gastric, hepatic and splenic arteries all branch off the _____ artery.

A. descending aortic

B. renal

C. pancreatic

D. celiac

E. portal

23. When tracing blood from the heart thru the liver and back to the heart, blood passes thru the following vessels: arch of the aorta, Descending aorta, celiac artery, hepatic artery, capillary network of Liver, inferior vena cava, and right atrium. Which of the following Has been omitted from the series?

A. hepatic portal vein

B. splenic vein

C. portal artery

D. hepatic vein

E. coronary vein

24. The two anterior arteries, the anterior communicating artery, the two posterior arteries and the posterior communicating artery form the:

A. portal system

B. circle of Willis

C. Columbus Circle

D. volar arch of the hand

E. Thomas Circle

25. The superior sagittal sinus and the transverse sinus are:

A. veins

B. arteries

C. Both A and B

D. Neither A nor B

26. In which of the following blood vessels can the pulse be felt most easily?

A. aorta

B. pulmonary trunk

C. external carotid artery

D. superior vena cava

E. coronary artery at the apex of the heart

27. The __?__ vein is the major deep vein of the thigh.

A. leg-work B. popliteal C. inguinal D. hip **E. femoral**

28. Which one of the following terms does NOT belong with the others?

A. tunica externa

B. tunica intima

C. basement membrane

D. endothelium

29. If a blood vessel has a wall composed of an endothelium, a basement membrane, and a few smooth muscle fibers, then the vessel is probably a/an:

A. venule B. capillary C. arteriole D. distributing artery

Part I. Fill in the blanks.

1. The layer of the blood vessels common to all types of blood vessels is the tunica .

2. Elastic connective tissue is more characteristic of than of .

Blood question

3. The adventitia layer and the layer of a capillary are missing.

4. are windows, or small openings, in the walls of capillaries.

5. The tunica is the thickest layer of arteries.

6. The membrane is very characteristic of arteries.

7._, which are semilunar shaped, are present in veins; they prevent the back flow of blood.

8. Food materials picked up in capillary beds in the small intestines are delivered to the liver for intermediary metabolism by way of the circulation.

9. In the portal circulation, materials filtered out of the blood at the glomerulus are reabsorbed in the peritubular capillary beds.

10. Releasing factors deposited into the portal system are used to cause the increased secretion and release of hormones from the anterior pituitary gland.

11. The is the respiratory, digestive, excretory and endocrine organ for the fetus.

12. carry blood heavy in waste products from the fetal circulation to the placenta.

13. carry blood high in oxygen and nutrients to the fetal circulation.

14. is a continuation of the umbilical vein as it passes through the liver of the fetus.

15. is a short vessel connecting the arch of the aorta to the pulmonary trunk in the fetus.

16. The is an opening in the fetal atrial septum.

17. The contains 2 umbilical arteries and 1 umbilical vein.

18. The circle of Willis is an between the basilar artery and the internal carotid arteries.

19. The arteries formed by the bifurcation of the Brachycephalic arteries are the and .

20. The arteries formed by the bifurcation of the Abdominal aorta are the and arteries.

21. The arteries formed by the bifurcation of the coeliac artery are the and arteries.

22. The is the first branch of the ascending aorta.

23. In the human, the arch of the aorta has branches.

24. In the cat, the arch of the aorta has branches.

25. Whereas the is the largest artery in the body, the are the largest veins.

26. The artery is most often compressed in performing arterial blood pressure determinations.

27. The vein is most often used in drawing blood from the body for chemical analysis.

28. The two blood vessels supplying the liver are the artery and the vein.

29. What two paired arteries enter the skull to supply the brain?

_____ and . .

Part II

Name the vessel or vessels that most directly **supply** blood to each of the following organs or areas:

1. liver

2. heart

3. face

4. spleen

5. stomach

6. small intestine

7. large intestine

8. uterus

9. ovary

10. testes

11. thigh

12. arm pit

ANSWERS TO VESSEL REVIEW FOR CIRCULATORY LAB PRACTICAL

Part I

1. intima

2. arteries; veins

3. media

4. Fenestrations

5. media

6. elastic

7. Valves

8. hepatic portal

9. renal

10. hypophyseal

11. placenta

12. Umbilical arteries

13. Umbilical vein

14. Ductus venosus

15. Ductus arteriosus

16. foramen ovale

17. umbilical cord

18. anastomosis

19. right subclavian; right common carotid arteries

20. right common iliac; left common iliac arteries

21. hepatic; splenic

22. coronary artery

23. 3

24. 2

25. systemic aorta; venae cavae

26. brachial

27. antecubital(median cubital)

28. hepatic; hepatic portal

29. vertebral; internal carotid

Part II

Blood question

1. Hepatic artery, portal vein

2. Coronary artery

3. External carotid artery

4. Splenic artery

5. Gastric artery

6. Superior mesenteric artery

7. Inferior mesenteric artery

8. Uterine artery

9. Ovarian(gonadal) artery

10. Testicular(gonadal) artery

11. Femoral artery

12. Axillary artery

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A. Platelet extract to thromboplastin

B. Vitamin K to prothrombin

C. Prothrombin to thrombin

D. Fibrin to fibrinogen

E. Bile to calcium ions

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4. The neutrophil function is to protect the body against infection. Its major weapon is --?-- And it works primarily in the --?--.

A. Phagocytosis; tissue spaces

B. Immunity; lymph nodes

C. Antibody production; blood stream

D. Coagulation; ruptured blood vessel

5. The major element or ingredient that allows oxygen to be transported via hemoglobin is:

A. Sodium

B. Zinc

C. Iron

D. Copper

E. Heme

6. A woman who is 5 feet 5 and weighs in at 150 lbs would be expected to have approximately :

A. 150 lbs of blood

B. 6.5 liters of blood

C. 6.0 liters of blood

D. 12 pints of blood

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7 The viscosity of blood is due mainly to

A. the plasma only.

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C. water and inorganic salts.

D. the blood pressure.

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38. The reason liver disorders can alter the composition and functional properties of the blood is because:

A. the liver synthesizes immunoglobulins and protein hormones.

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BLOOD-2 ANSWERS

1. Prothrombinase catalyzes the conversion of :

A. Platelet extract to thromboplastin

B. Vitamin K to prothrombin

C. Prothrombin to thrombin

D. Fibrin to fibrinogen

E. Bile to calcium ions

2.In clotting, __?__ becomes the insoluble threads of the clot, that is, it becomes__?__.

A. The platelet; fibrinogen

B. Calcium oxalate; soluble in the blood

C. Fibrinogen; fibrin

D. Prothrombin; thrombin

3. Patients, with liver disease or defective gastrointestinal fat absorption, frequently have serious bleeding problems because

A. There is a deficiency of platelet cell fragments produced by the liver

B. There is NOT enough energy to synthesize fibrinogen

C. There is a deficiency of ca++ in the blood

D. There is a deficiency of bile salts which are necessary for vitamin K absorption and vitamin K is an essential factor in hepatic synthesis of prothrombin and other clotting factors

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4. The neutrophil function is to protect the body against infection. Its major weapon is --?-- And it works primarily in the --?--.

A. Phagocytosis; tissue spaces

B. Immunity; lymph nodes

C. Antibody production; blood stream

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5. The major element or ingredient that allows oxygen to be transported via hemoglobin is:

A. Sodium

B. Zinc

C. Iron

D. Copper

E. Heme

6. A woman who is 5 feet 5 and weighs in at 150 lbs would be expected to have approximately A. 150 lbs of blood

B. 6.5 liters of blood

C. 6.0 liters of blood

D. 12 pints of blood

E. two of the above

7 The viscosity of blood is due mainly to

A. the plasma only.

B. the proteins and the red blood cells.

C. water and inorganic salts.

D. the blood pressure.

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D. agglutinin.

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B. Type A+

C. Type B-

D. Type AB+

E. Type AB-

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A. contains antibodies against "A" agglutinogens.

B. contains antibodies against "B" agglutinogens.

C. plasma contains A agglutinogens.

D. does not contain RH antigens.

E. has RH antibodies.

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B. There are no antibodies (to red blood cell antigens) in the plasma.

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14. In blood transfusions, it is important that the --?-- red blood cells not be agglutinated by the --?-- plasma.

A. man's; woman's

B. ABO's; RH's

C. RH's; ABO's

D. donor's; recipient's

E. recipient's; donor's

15. If, during transfusions, the recipient's antibodies are not complimentary to the donor's antigens, then the two bloods are

A. compatible for blood transfusion.

B. incompatible for transfusion.

C. hypoxic and in need of clotting factors, such as vitamin K.

D. sensitized and compatible.

E. None of the above

16. Antibodies against the RH factor are present in the plasma of

A. all individuals.

B. all RH negative individuals.

C. RH negative individuals who have been exposed to RH positive blood.

D. RH positive individuals who have been exposed to RH negative blood.

17. A person can be "sensitized" to RH+ blood by

A. receiving sensitive blood from a RH- donor.

B. being RH negative and receiving a transfusion of RH+ blood.

C. Both A and B

D. Neither A nor B

18. Antibodies, present in the --?--, that cause agglutination are called --?--.

A. red blood cells; agglutinogens.

B. plasma; agglutinins.

C. Both A and B

D. Neither A nor B

19. The probability of agglutination occurring when a person with type A blood receives cells from a person with type AB blood is –?-- when she receives from a person with type O blood.

A. greater than

B. less than

C. the same as

20. White blood cells form a plug that seals a break in a blood vessel.

A. True

B. False

21. Blood cells are "crenated" when

A. the plasma surrounding them is hypertonic.

B. fluid from the plasma enters them and causes their cell membranes to rupture.

C. Both A and B

D. Neither A nor B

22. Red marrow in the adult is found to a large extent in the:

A. proximal epiphyses of the long bones.

B. medullary cavities of all long bones.

C. distal epiphyses of the tibia, fibula, radius and ulna.

D. proximal and distal epiphyses of all long bones.

23. Which of the following conditions will stimulate erythropoiesis?

A. Prolonged, vigorous athletic training

B. A two-week vacation to the top of the Rocky Mountains

C. A respiratory tract blockage or abnormality

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24. When a hematocrit is normal,

A. basophils will be about 5% of the white blood count.

B. the viscosity of the blood will be about four times greater than water.

C. the blood acidity will be about 6.15 to 6.20.

D. red blood cells will make up about 45% of the total blood volume.

25. It has been discovered in working with blood groups that

A. type O people can serve as universal recipients.

B. cross-matching is unnecessary if people have the same blood type.

C. type O is the universal donor.

D. All of the above

26. Two important substances needed for the synthesis of hemoglobin are:

A. albumin and globulin.

B. heme and globin.

C. iron and vitamin B12.

D. epinephrine and PCO3

E. actin and myosin.

27. The ability for granulocytes and monocytes to leave blood vessels and migrate to sites of infection is called:

A. Phagocytosis.

B. septicemia.

C. diapedesis.

D. diffusion.

28. Eosinophils:

A. Proliferate in allergic reactions.

B. are typically more numerous than lymphocytes.

C. Both A and B

D. Neither A nor B

29. If you add anti-A agglutinin to a blood sample and agglutination, or clumping occurs, the presence of which antigen or agglutinogen is indicated?

A. Antigen A

B. Antigen B

C. Antigen O

D. Antigen D

30. In which cellular process does the lysosome release its hydrolytic enzymes?

A. Phagocytosis

B. Diapedesis

C. Cell division

D. Lymphocytic pre-processing

E. Tolerance

31. The amount of erythropoiesis when erythropoietin is present is --?-- when erythropoietin is absent.

A. Greater than

B. Less than

C. The same as

32. The stem cell from which all formed elements arise is called

A. a leukocyte.

B. a pernicious erythrocyte.

C. a hemocytoblast.

D. an erythroblast.

E. leucopoietoblast.

33. Leucocytes

A. lack a nucleus when they are mature cells.

B. usually have more than one nucleus per cell.

C. constitute the largest number of cells when examined in a blood smear.

D. are defense agents of the blood.

34. Which of the following is true of a person who has type AB blood?

A. He has A and B agglutinogens in his serum.

B. He has A and B. agglutinogens on his red blood cells.

C. He has A and B agglutinins in his serum.

D. He has A and B agglutinins on his red blood cells.

35. Neutrophils

A. are the most powerful phagocytes in the body.

B. are cells which can digest up to five times more microorganisms, i.e., bacteria, than any other phagocyte.

C. release heparin during acute infections.

D. are always increased in number in allergic reactions.

E. are the most active phagocytic cell in inflammation and acute infections.

36. Prothrombin activator substance or --?-- is produced by traumatized tissues and broken platelets.

A. thrombin

B. prothrombinase

C. fibrinogen

D. fibrin

37. The following is the list of basic events in hemostasis. Put the list in the proper order by choosing the correct letter below the dotted line.

1. Blood vessel is cut

2. Platelet plug is formed

3. Fibrin threads formed

4. Clot retracts

==========

A. 4, 3, 2, 1

B. 3, 2, 1, 4

C. 2, 1, 4, 3

D. 1, 2, 3, 4

38. Which sequence is correct for the following events?

1. Fibrinogen ----> fibrin

2. Clot retraction

3. Release of platelet activating factors

4. Prothrombin ----> thrombin

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39. Which of the following is a direct effect of histamine?

A. Leukocyte emigration

B. Phagocytosis

C. Degranulation

D. Vasodilation of arterioles and leakage from capillary beds

E. Causes blood vessels to constrict.

40. Which of the following is an agranulocyte?

A. Neutrophil

B. Basophil

C. Monocyte

D. Eosinophil

BLOOD-3 ANSWERS

1. Reticulocytes are nucleated immature cells that develop into mature:

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D. donor's; recipient's

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15. If, during transfusions, the recipient's antibodies are not complimentary to the donor's antigens, then the two bloods are

A. compatible for blood transfusion.

B. incompatible for transfusion.

C. hypoxic and in need of clotting factors, such as vitamin K.

D. sensitized and compatible.

E. None of the above

16. Antibodies against the RH factor are present in the plasma of

A. all individuals.

B. all RH negative individuals.

C. RH negative individuals who have been exposed to RH positive blood.

D. RH positive individuals who have been exposed to RH negative blood.

17. A person can be "sensitized" to RH+ blood by

A. receiving sensitive blood from a RH- donor.

B. being RH negative and receiving a transfusion of RH+ blood.

C. Both A and B

D. Neither A nor B

18. Antibodies, present in the --?--, that cause agglutination are called --?--.

A. red blood cells; agglutinogens.

B. plasma; agglutinins.

C. Both A and B

D. Neither A nor B

19. The probability of agglutination occurring when a person with type A blood receives cells from a person with type AB blood is –?-- when she receives from a person with type O blood.

A. greater than

B. less than

C. the same as

20. White blood cells form a plug that seals a break in a blood vessel.

A. True

B. False

21. Blood cells are "crenated" when

A. the plasma surrounding them is hypertonic.

B. fluid from the plasma enters them and causes their cell membranes to rupture.

C. Both A and B

D. Neither A nor B

22. Red marrow in the adult is found to a large extent in the:

A. proximal epiphyses of the long bones.

B. medullary cavities of all long bones.

C. distal epiphyses of the tibia, fibula, radius and ulna.

D. proximal and distal epiphyses of all long bones.

23. Which of the following conditions will stimulate erythropoiesis?

A. Prolonged, vigorous athletic training

B. A two-week vacation to the top of the Rocky Mountains

C. A respiratory tract blockage or abnormality

D. All of the above

24. When a hematocrit is normal,

A. basophils will be about 5% of the white blood count.

B. the viscosity of the blood will be about four times greater than water.

C. the blood acidity will be about 6.15 to 6.20.

D. red blood cells will make up about 45% of the total blood volume.

25. It has been discovered in working with blood groups that

A. type O people can serve as universal recipients.

B. cross-matching is unnecessary if people have the same blood type.

C. type O is the universal donor.

D. All of the above

26. Two important substances needed for the synthesis of hemoglobin are:

A. albumin and globulin.

B. heme and globin.

C. iron and vitamin B12.

D. epinephrine and PCO3

E. actin and myosin.

27. The ability for granulocytes and monocytes to leave blood vessels and migrate to sites of infection is called:

A. Phagocytosis.

B. septicemia.

C. diapedesis.

D. diffusion.

28. Eosinophils:

A. Proliferate in allergic reactions.

B. are typically more numerous than lymphocytes.

C. Both A and B

D. Neither A nor B

29. If you add anti-A agglutinin to a blood sample and agglutination, or clumping occurs, the presence of which antigen or agglutinogen is indicated?

A. Antigen A

B. Antigen B

C. Antigen O

D. Antigen D

30. In which cellular process does the lysosome release its hydrolytic enzymes?

A. Phagocytosis

B. Diapedesis

C. Cell division

D. Lymphocytic pre-processing

E. Tolerance

31. The amount of erythropoiesis when erythropoietin is present is --?-- when erythropoietin is absent.

A. Greater than

B. Less than

C. The same as

32. The stem cell from which all formed elements arise is called

A. a leukocyte.

B. a pernicious erythrocyte.

C. a hemocytoblast.

D. an erythroblast.

E. leucopoietoblast.

33. Leucocytes

A. lack a nucleus when they are mature cells.

B. usually have more than one nucleus per cell.

C. constitute the largest number of cells when examined in a blood smear.

D. are defense agents of the blood.

34. Which of the following is true of a person who has type AB blood?

A. He has A and B agglutinogens in his serum.

B. He has A and B. agglutinogens on his red blood cells.

C. He has A and B agglutinins in his serum.

D. He has A and B agglutinins on his red blood cells.

35. Neutrophils

A. are the most powerful phagocytes in the body.

B. are cells which can digest up to five times more microorganisms, i.e., bacteria, than any other phagocyte.

C. release heparin during acute infections.

D. are always increased in number in allergic reactions.

E. are the most active phagocytic cell in inflammation and acute infections.

36. Prothrombin activator substance or --?-- is produced by traumatized tissues and broken platelets.

A. thrombin

B. prothrombinase

C. fibrinogen

D. fibrin

37. The following is the list of basic events in hemostasis. Put the list in the proper order by choosing the correct letter below the dotted line.

1. Blood vessel is cut

2. Platelet plug is formed

3. Fibrin threads formed

4. Clot retracts

==========

A. 4, 3, 2, 1

B. 3, 2, 1, 4

C. 2, 1, 4, 3

D. 1, 2, 3, 4

38. Which sequence is correct for the following events?

1. Fibrinogen ----> fibrin

2. Clot retraction

3. Release of platelet activating factors

4. Prothrombin ----> thrombin

==========

A. 3, 4, 1, 2

B. 1, 2, 3, 4

C. 4, 3, 1, 2

D. 3, 2, 1, 4

E. 3, 4, 2, 1

39. Which of the following is a direct effect of histamine?

A. Leukocyte emigration

B. Phagocytosis

C. Degranulation

D. Vasodilation of arterioles and leakage from capillary beds

E. Causes blood vessels to constrict.

40. Which of the following is an agranulocyte?

A. Neutrophil

B. Basophil

C. Monocyte

D. Eosinophil

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B. always lead to clumping of red blood cells

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3. When an RH-negative mother and an RH-positive father produce an Rh-negative baby. Which of the following responses will occur?

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A. Polycythemia

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5 Which of the following is a function of the blood?

A. Delivery of oxygen to tissue cells

B. Transport of metabolic wastes from cells

C. Maintain normal fluid and electrolyte balance

D. Transport of certain ions and hormones

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6. Which of the following is the most abundant plasma protein?

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A. is a colloidal solution

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8. Which of the following is <u>not</u> a formed element of the blood

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9. The only formed elements that possess a nucleus when mature are the

A. thrombocytes

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B. Leukocytes play a role in oxygen transport

C. Leukocytes are the largest of the formed elements

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A. are the least numerous of the formed elements

B. are cylindrically shaped cells

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A. gives white blood cells their color

B. transports oxygen

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