

- 10) _____ the maximum blood pressure achieved during each heartbeat
- 11) _____ the minimum blood pressure achieved during each heartbeat
- 12) _____ the rhythmical throbbing of arteries that can be felt through the skin
- 13) _____ the tiniest blood vessels in the human body
- 14) _____ vessels attached to both the capillaries and veins; the diameter and the wall thickness of these vessels increase in size from the capillaries and towards the veins

Choose the correct answer from the following questions:

1) The path of blood through all of the vessels is:

- A) arterioles, arteries, capillaries, veins, venules
- B) arterioles, arteries, capillaries, venules, veins
- C) arteries, arterioles, capillaries, veins, venules
- D) arterioles, arteries, venules, veins, capillaries
- E) arteries, arterioles, capillaries, venules, veins

2) In which one of the following blood vessels is blood pressure the highest:

- A) arterioles
- B) arteries
- C) vena cava
- D) capillaries
- E) veins

3) Substances tend to leave the bloodstream from the arteries to the capillaries because:

- A) blood pressure is higher at the arterial end of the capillary
- B) the osmotic pressure of the blood is higher as it leaves the capillary and moves towards the veins
- C) blood pressure is higher from the capillaries to the veins
- D) the osmotic pressure of the blood is higher as it leaves the capillary and moves towards the arteries

4) Veins:

- A) carry blood away from the heart
- B) do not transport oxygen-rich blood
- C) branch into smaller vessels called arterioles
- D) operate under high pressure
- E) have valves to prevent the backflow of blood

5) Pulmonary veins:

- A) split off the pulmonary trunk
- B) transport oxygenated blood to the heart
- C) return blood to the right atrium of the heart
- D) transport oxygenated blood to the lungs
- E) transport blood rich in carbon dioxide to the lungs

6) Which of the following reduces heart rate:

- A) increased body temperature
- B) exercise
- C) high blood pressure
- D) epinephrine

Application Question:

The following observations were made on a patient who had suffered a bullet wound: Heart rate was elevated and rising. Blood pressure was very low and dropping. After bleeding was stopped and a *blood transfusion* (the introduction of new blood from a donor) was given, blood pressure increased. Which of the following statements is consistent with these observations concerning blood pressure? Defend your answer.

- a) Negative-feedback mechanisms are occasionally inadequate without medical intervention.
- b) The transfusion interrupted a negative-feedback mechanism.
- c) The transfusion was not necessary.