Circulatory system practice test

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1. Which of these is a function of the circulatory system?
   a. removing wastes from tissues
   b. delivering carbon dioxide to cells for cellular respiration
   c. transferring impulses from one cell to another
   d. all of the above

2. Which are the components of the circulatory system?
   a. heart and lungs
   b. blood vessels, heart, and lungs
   c. blood, blood vessels, and heart
   d. heart and blood

3. Which body system is directly affected when a person has heart disease?
   a. circulatory system
   b. endocrine system
   c. reproductive system
   d. nervous system

4. Which of the following pathways is the largest of the circulatory system?
   a. systemic circulation
   b. pulmonary circulation
   c. capillary beds
   d. coronary circulation

5. Which is the correct direction of blood flow?
   a. right atrium → right ventricle → pulmonary artery
   b. right atrium → left atrium → pulmonary artery
   c. left ventricle → pulmonary artery → aorta
   d. left ventricle → left atrium → aorta

6. In the heart, the mixing of oxygen-rich and oxygen-poor blood is prevented by the
   a. mitral valve.
   b. tricuspid valve.
   c. septum.
   d. pericardium.

7. Compared with the walls of arteries, the walls of capillaries
   a. are thicker.
   b. are thinner.
   c. lack valves.
   d. have more resistance.

8. Through which path does blood typically flow through the circulatory system?
   a. arteries → capillaries → veins
   b. veins → capillaries → arteries
   c. arteries → veins → capillaries
   d. capillaries → arteries → veins
9. Which type of blood vessel carries blood away from the heart?
   a. veins
   b. arteries
   c. capillaries
   d. lymph nodes

10. Which of these is NOT an effect of exercise on veins?
    a. Exercise helps force blood through the veins.
    b. Exercise helps keep blood from accumulating and stretching veins.
    c. Exercise helps keep the walls around veins strong.
    d. Exercise allows blood to pool in veins.

11. Which of the following is true about blood pressure?
    a. It is not affected by atherosclerosis.
    b. It is typically lower in veins than in arteries.
    c. It drops a great deal when traveling through arteries.
    d. Diastolic pressure is higher than systolic pressure.

12. When an infection occurs, the number of
    a. red blood cells increases.
    b. red blood cells decreases.
    c. white blood cells increases.
    d. white blood cells decreases.

13. Which blood cells are most numerous in the body?
    a. red
    b. white
    c. platelets
    d. plasma
14. What is occurring in Step A of Figure 33-1?
   a. Platelets have released the clotting factor, triggering a series of reactions.
   b. Platelets are coming in contact with the edges of a broken blood vessel.
   c. A clot has sealed the damaged area preventing further blood loss.
   d. An enzyme has converted soluble plasma proteins into insoluble sticky filaments.

15. In Figure 33-1, what does Step B show?
   a. B cells fighting infection
   b. the capillary wall breaking
   c. the clumping of platelets
   d. the conversion of fibrinogen into fibrin

16. Which of these organs removes old or damaged blood cells from the blood that flows through it?
   a. pancreas
   b. lymph node
   c. thymus
   d. spleen
17. In Figure 33-2, what is happening in diagram A?
   a. A cap has ruptured in the wall of a blood vessel.
   b. Plaque has built up in the wall of a blood vessel.
   c. A blood clot has formed inside an artery.
   d. Bacteria have invaded a blood vessel in the heart.

18. In Figure 33-2, what is happening in diagram C?
   a. A cap has ruptured in the wall of a blood vessel.
   b. Plaque has built up in the wall of a blood vessel.
   c. A blood clot has formed inside an artery.
   d. Bacteria have invaded a blood vessel in the heart.

19. Uncontrolled hypertension can lead to
   a. heart attack.
   b. stroke.
   c. kidney damage.
   d. all of the above.

20. The sudden death of brain cells when their blood supply is interrupted is called
   a. a heart attack.
   b. a stroke.
   c. hypertension.
   d. atherosclerosis.

21. Which of these structures provides the muscle cells in the heart with a constant supply of oxygen?
   a. the superior vena cava
   b. the pulmonary artery
   c. coronary arteries
   d. systemic veins

22. Cholesterol, which is part of animal cell membranes, is what type of molecule?
   a. carbohydrate
   b. lipid
   c. protein
   d. nucleic acid
23. Which of these organs manufactures cholesterol?
   a. stomach
   b. kidneys
   c. liver
   d. heart
Circulatory system practice test
Answer Section

MULTIPLE CHOICE

1. ANS: A  PTS: 1  DIF: L2  REF: p. 948
   OBJ: 33.1.1 Identify the functions of the human circulatory system.
   MSC: comprehension

2. ANS: C  PTS: 1  DIF: L1  REF: p. 948
   OBJ: 33.1.1 Identify the functions of the human circulatory system.
   MSC: knowledge

3. ANS: A  PTS: 1  DIF: L1  REF: p. 948
   OBJ: 33.1.1 Identify the functions of the human circulatory system.
   MSC: application

4. ANS: A  PTS: 1  DIF: L2  REF: p. 950
   OBJ: 33.1.2 Describe the structure of the heart and explain how it pumps blood through the body.
   STA: SC.912.L.14.40  MSC: analysis

5. ANS: A  PTS: 1  DIF: L2  REF: p. 949
   OBJ: 33.1.2 Describe the structure of the heart and explain how it pumps blood through the body.
   MSC: synthesis

6. ANS: C  PTS: 1  DIF: L2  REF: p. 949
   OBJ: 33.1.2 Describe the structure of the heart and explain how it pumps blood through the body.
   STA: SC.912.L.14.40  MSC: comprehension

7. ANS: B  PTS: 1  DIF: L2  REF: p. 952
   OBJ: 33.1.3 Name three types of blood vessels in the circulatory system.
   MSC: comprehension

8. ANS: A  PTS: 1  DIF: L1  REF: p. 952
   OBJ: 33.1.3 Name three types of blood vessels in the circulatory system.
   MSC: synthesis

9. ANS: B  PTS: 1  DIF: L1  REF: p. 952
   OBJ: 33.1.3 Name three types of blood vessels in the circulatory system.
   MSC: knowledge

10. ANS: D  PTS: 1  DIF: L2  REF: p. 952
    OBJ: 33.1.3 Name three types of blood vessels in the circulatory system.

11. ANS: B  PTS: 1  DIF: L3  REF: p. 953
    OBJ: 33.1.3 Name three types of blood vessels in the circulatory system.
<table>
<thead>
<tr>
<th>ID: A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12. ANS: C</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.1 Explain the functions of blood plasma, red blood cells, white blood cells, and platelets.</td>
<td>STA: SC.912.L.14.34</td>
</tr>
<tr>
<td>MSC: analysis</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>13. ANS: A</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.1 Explain the functions of blood plasma, red blood cells, white blood cells, and platelets.</td>
<td>STA: SC.912.L.14.34</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>14. ANS: B</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.1 Explain the functions of blood plasma, red blood cells, white blood cells, and platelets.</td>
<td>STA: SC.912.L.14.34</td>
</tr>
<tr>
<td>MSC: analysis</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>15. ANS: C</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.1 Explain the functions of blood plasma, red blood cells, white blood cells, and platelets.</td>
<td>STA: SC.912.L.14.34</td>
</tr>
<tr>
<td>MSC: analysis</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>16. ANS: D</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.2 Describe the role of the lymphatic system.</td>
<td>STA: SC.912.L.14.42</td>
</tr>
<tr>
<td>MSC: comprehension</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>17. ANS: B</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.3 List three common circulatory diseases.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: analysis</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>18. ANS: C</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.3 List three common circulatory diseases.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: analysis</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>19. ANS: D</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.3 List three common circulatory diseases.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>20. ANS: B</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.3 List three common circulatory diseases.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>21. ANS: C</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.3 List three common circulatory diseases.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>22. ANS: B</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.4 Describe the connection between cholesterol and circulatory disease.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
<tr>
<td>23. ANS: C</td>
<td>PTS: 1</td>
</tr>
<tr>
<td>OBJ: 33.2.4 Describe the connection between cholesterol and circulatory disease.</td>
<td>STA: SC.912.L.14.36</td>
</tr>
<tr>
<td>MSC: knowledge</td>
<td>TOP: Foundation Edition</td>
</tr>
</tbody>
</table>