

QUIZ: ANATOMY AND PHYSIOLOGY PART 1

Please record your answers on the answer sheet.

1. Of the following, which are surfaces of the heart?
 - a. right atrial, lateral, and posterior
 - b. diaphragmatic, anterior, and posterior
 - c. posterior, ventricular, and aortic
 - d. mitral, lateral, and anterior

2. RAO
 - a. is the abbreviation for right anterior oblique
 - b. is the fluoroscopic view of the heart in which the left ventricle is seen most prominently
 - c. is an artery responsible for an anterior wall MI
 - d. is a chamber of the heart

3. The right coronary artery delivers blood to
 - a. the inferior and posterior walls of the left ventricle
 - b. the right ventricle and the mitral valve
 - c. the right atrium and the anterior wall of the left ventricle
 - d. the SA node and the lateral wall of the left ventricle

4. The left circumflex artery delivers blood to
 - a. the right bundle branch
 - b. the right ventricle
 - c. the left lateral wall
 - d. the anterior wall

5. The right atrium receives blood from
 - a. the aorta
 - b. the superior vena cava
 - c. the inferior vena cava
 - d. the coronary sinus
 - e. a, b, and c
 - f. b, c, and d

6. Which of the following are AV valves?
 - a. pulmonic
 - b. mitral
 - c. tricuspid
 - d. aortic
 - e. a and b
 - f. b and c
 - g. c and d

7. The apex of the heart is found
- near the aorta and pulmonary artery
 - by the left anterior wall
 - at the tip of the left ventricle
 - near the pulmonary veins
8. The crista terminalis
- is found in the left atrium
 - is also referred to as the terminal crest
 - is the region thought to be responsible for 'inappropriate sinus tachycardia'
 - is near the pectinate muscles
 - a, b, and c
 - b, c, and d
 - a and d
9. The fossa ovalis
- is found in the right atrium
 - was the foramen ovale prior to birth
 - is the region where septal punctures are performed
 - a and b
 - a and c
 - all of the above
10. The thebesian valve is found
- near the pulmonary veins
 - in the superior vena cava
 - in the coronary sinus
 - in the inferior vena cava
11. The rigid muscles of the right ventricle are called
- the infundibulum
 - ligaments of Marshall
 - trabeculae carnae
 - RSPV
12. The left atrial appendage
- is an area of stagnant blood flow
 - is an area where clots are known to form
 - is the region where the pulmonary veins insert
 - a and b
 - b and c

13. Heart sounds represent
 - a. opening and closing of heart valves
 - b. the movement of blood through the great arteries
 - c. the P wave and QRS
 - d. The movement of blood through the coronary veins

14. During which of the following would you see a catheter placed in the coronary sinus?
 - a. a routine pacemaker implant
 - b. an AVNRT study
 - c. a biventricular pacemaker implant
 - d. a right-sided VT case

15. The outer layer of the heart muscle is
 - a. endocardium
 - b. myocardium
 - c. epicardium
 - d. pericardium

16. The double-walled membranous sac that contains the heart is
 - a. endocardium
 - b. myocardium
 - c. epicardium
 - d. pericardium

17. The three components of the intercalated discs are
 - a. desmosomes, adherens junctions, and gap junctions
 - b. actin, myosin, and sarcomeres
 - c. fibrous tissue, pericardium, and coronary sinus

18. Systolic blood pressure represents
 - a. pressure obtained during the resting phase of the heart
 - b. the peak pressure found in the pulmonary veins
 - c. the T wave on the ECG complex
 - d. arterial pressure measured during ventricular contraction

19. Cardiac output is the product of
 - a. heart rate x stroke volume
 - b. systolic blood pressure x stroke volume
 - c. heart rate x respiratory rate
 - d. heart rate x preload

20. Cardiac index
- is cardiac output divided by body surface area
 - is often used clinically
 - is more representative of heart function because body size is factored in
 - all of the above
21. The four periods of the cardiac cycle are
- atrial systole
 - afterload
 - ventricular systole
 - absolute refractory period
 - atrial diastole
 - ventricular diastole
 - MVO₂
- 1, 3, 6, and 7
 - 2, 3, 4, and 5
 - 1, 3, 5, and 6
 - 1, 2, 4, and 7
22. Ventricular systole
- is the period when isovolumic relaxation occurs
 - is the period of ventricular contraction
 - represents the phase of atrial contraction
 - is when the aortic and pulmonic valves close
23. The second heart sound occurs during
- atrial systole
 - ventricular systole
 - ventricular diastole
 - isovolumic contraction
24. Cardiac output can vary up to
- 5-6x resting level
 - 7-8x resting level
 - 9-10x resting level
 - 2-4x resting level
25. Preload
- is the stretch of myocardial fibers at end-diastole
 - is determined by the diastolic filling pressure and total blood volume
 - is determined by distribution of blood volume and atrial systole
 - all of the above

26. Factors that increase the demand and therefore the MVO₂ would be
- afterload
 - preload
 - contractility
 - heart rate
 - a and b
 - all of the above
27. Interventions that would increase cardiac blood flow would be
- administering thrombolytic agents
 - stenting coronary arteries
 - CABG
 - all of the above
28. Adrenergic receptor activation in the heart involves
- parasympathetic fibers
 - alpha 1 receptors
 - dopaminergic receptors
 - purinergic receptors
 - a and c
 - b and c
 - a and d
29. Arterial baroreceptors
- are responsible for the reflex control of blood pressure
 - are located in the atria
 - are found in the adventitia of the carotid sinus and the aortic arch
 - modify the SA control of the heart
 - a and b
 - a and c
 - b and d
30. Chemoreceptors
- are found in the carotid body and aortic arch
 - respond to change in transmural pressure or stretch
 - react to decreased CO₂ levels
 - are noncontractile proteins
31. Angiotensin II
- is a product of renin production by the kidneys
 - is released because of low blood pressure
 - the end result of its release is increased blood volume and a rise in blood pressure
 - all of the above