

ANSWER KEY**Chapter 8 Test Answer Key****BLM 8.4.1A**Answers to **Multiple Choice** Questions

1. a
2. c
3. d
4. d
5. b
6. a
7. c
8. c
9. b
10. d
11. b
12. c
13. c
14. a
15. c
16. d
17. b
18. d
19. a
20. a
21. d
22. b
23. c
24. a
25. d

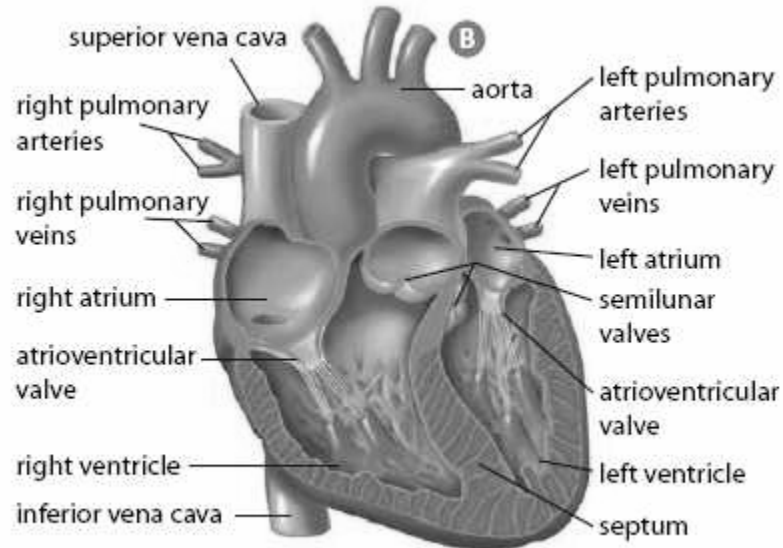
Answers to **Numerical Response** Questions

1. 2, 3, 4, 1
2. 3, 1, 2, 4
3. 4900
4. 100; 140

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Sample Answers to **Written Response** Questions

1. a) The diagram below (also found as Figure 8.2 B on page 269 of the student text) could be used to evaluate this question. Award 2.5 marks for the sketch and 7.5 marks (1/2 mark each) for the labels for a total of 10 marks.



- b) Students may choose a different format. However, their answer should include the following (award 1/2 mark each for a total of 6 marks – do not award a mark for inferior vena cava)

inferior vena cava → right atrium → right atrioventricular valve → right atrium → semilunar valve → pulmonary artery → lungs → pulmonary vein → left atrium → left atrioventricular valve → left ventricle → semilunar valve → aorta

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c) Damage to the aortic semilunar valve would result in a “whoosh” sound after the dub sound, signifying backflow of blood to the left ventricle. Damage to the left atrioventricular valve would result in a “whoosh” sound after the lub sound, signifying backflow of blood into the left atrium. (4 marks)

d) Pulse is the rhythmic expansion and contraction of an artery as blood moves through the arteries. An artery has highly elastic walls. This elasticity allows the artery to expand as a wave of blood surges through it during the contraction of the ventricles, and then to snap back again during relaxation of the ventricles.

This type of artificial heart has two rotor-based pumps that continually cycle blood through the body. Therefore, you would not feel the wave of blood surging through the arteries. (4 marks)

e) Look for some of the following questions.

- What are the risks associated with a heart transplant?
- Will the heart be rejected by the immune system?
- What are the benefits to the individual in terms of lifestyle and ability to become a productive member of society?
- What can be done to increase the supply of organs?
- Should we create markets in body parts, encourage strangers to donate their organs, give the government the authority to take organs and tissues?
- Should people be allowed to sell and buy organs for transplant?
- And who should get the scarce supply of organs--those who can pay, celebrities, children, those who are not 'responsible' for their diseases?
- Should artificial organs be used as a bridging mechanism in transplant operations?
- Should money be used for artificial organs or should it be used for other research or other medical services.

(4 marks)