

CHAPTER 13: The Heart**Part I: Objective Based Questions****Objective 1**

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|------|------------------------|---------------------|
| 1. D | 8. B | B. coronary vessels |
| 2. C | 9. D | C. aortic arch |
| 3. A | 10. atria | D. pulmonary trunk |
| 4. A | 11. fibrous skeleton | E. base of heart |
| 5. B | 12. intercalated discs | F. left side |
| 6. D | 13. Figure 13-1 | G. apex |
| 7. A | A. right side | |

Objective 2

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|-------|------------------------------|----------------------------------|
| 1. A | 15. Figure 13-2 | O. left pulmonary veins |
| 2. C | A. pulmonary semilunar valve | P. bicuspid valve |
| 3. B | B. superior vena cava | Q. aortic semilunar valve |
| 4. D | C. right pulmonary arteries | R. interventricular septum |
| 5. C | D. right atrium | S. left ventricle |
| 6. A | E. right pulmonary veins | T. myocardium |
| 7. B | F. right pulmonary arteries | 16. Figure 13-3 |
| 8. C | G. tricuspid valve | A. tricuspid valve (O) |
| 9. D | H. chordae tendinae | B. bicuspid AV valve (O) |
| 10. C | I. right ventricle | C. aortic semilunar valve (C) |
| 11. A | J. inferior vena cava | D. pulmonary semilunar valve (C) |
| 12. B | K. aortic arch | E. tricuspid AV valve (C) |
| 13. C | L. pulmonary trunk | F. bicuspid valve (C) |
| 14. A | M. left atrium | G. aortic semilunar valve (O) |
| | N. left pulmonary arteries | H. pulmonary semilunar valve (O) |

Objective 3

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|------|-----------------------|----------------|
| 1. C | 4. B | B. epicardium |
| 2. A | 5. Figure 13-4 | C. myocardium |
| 3. B | A. intercalated disc | D. endocardium |

Objective 4

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|------|------|
| 1. C | 3. C |
| 2. D | 4. A |

Objective 5

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|------|-------------------------|-----------------------|
| 1. B | 6. Figure 13-5 | 7. Figure 13-6 |
| 2. D | A. sinoatrial (SA node) | A. 1 |
| 3. C | B. AV node | B. 2 |
| 4. A | C. AV bundle | 8. P |
| 5. D | D. Bundle branches | 9. QRS |
| | E. Purkinje fibers | 10. T |

Objective 6

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|------|------|------|
| 1. C | 3. D | 5. A |
| 2. C | 4. B | |

Objective 7

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|------|------|
| 1. B | 4. B |
| 2. A | 5. C |
| 3. B | |

Part II: Chapter Comprehensive Exercises

A. Word Elimination

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|------------------------|---------------------|----------------|-------------|-------------------|
| 1. L. pulmonary artery | 3. chordae tendinae | 5. systole | 7. auricles | 9. multinucleated |
| 2. semilunar | 4. anastomoses | 6. tachycardia | 8. AV valve | 10. aortic arch |

B. Matching

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|------|------|------|------|-------|
| 1. I | 3. G | 5. H | 7. C | 9. B |
| 2. F | 4. J | 6. D | 8. A | 10. E |

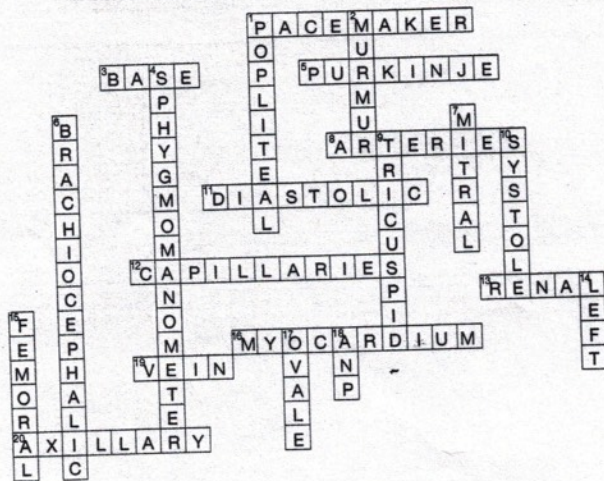
C. Concept Map I - The Heart

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|---------------------|-----------------------|---------------------|
| 1. two atria | 5. oxygenated blood | 9. epicardium |
| 2. blood from atria | 6. two semilunar | 10. pacemaker cells |
| 3. endocardium | 7. aortic | |
| 4. tricuspid | 8. deoxygenated blood | |

Concept Map II - Path of Blood Flow through the Heart

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|------------------------------|------------------------------|------------------------|
| 1. superior vena cava | 7. pulmonary veins | 13. aorta |
| 2. right atrium | 8. left atrium | 14. systemic arteries |
| 3. tricuspid valve | 9. bicuspid valve | 15. systemic veins |
| 4. right ventricle | 10. left ventricle | 16. inferior vena cava |
| 5. pulmonary semilunar valve | 11. aortic semilunar valve | |
| 6. pulmonary arteries | 12. L. common carotid artery | |

D. Crossword Puzzle



E. Short Answer Questions (Answers)

- $CO = SV \times HR$
 $CO = 75 \text{ ml} \times 80 \text{ beats/min} = 6000 \text{ ml/min}$
 $6000 \text{ ml} = 6.0 \text{ l/min}$
- $\% \text{ increase} = \frac{5 \text{ l/min}}{10 \text{ l/min}} = .50 = 50\%$
- decreasing CO, decreasing SV, decreasing length of diastole, decreasing ventricular filling
- $SV = EDV - ESV$
 $SV = 140 \text{ ml} - 60 \text{ ml} = 80 \text{ ml}$