

LABORATORY EXERCISE 42 THE CARDIAC CYCLE

Laboratory Report Answers

PART A

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|----|----------|-----|-----------------------------|
| 1. | 70 | 6. | ventricles |
| 2. | systole | 7. | vibrations |
| 3. | diastole | 8. | A-V valves |
| 4. | closed | 9. | pulmonary and aortic valves |
| 5. | open | 10. | murmur |

PART B

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|----|------------------------|----|------------------------|
| 1. | (experimental results) | 2. | (experimental results) |
|----|------------------------|----|------------------------|

PART C

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|----|----------------------------|-----|--|
| 1. | cardiac muscle | 9. | ventricles |
| 2. | S-A (sinoatrial) | 10. | ventricles |
| 3. | A-V (atrioventricular) | 11. | Atrial repolarization occurs at the same time that the ventricular fibers depolarize. The QRS complex indicating ventricular depolarization obscures any recording of the atrial repolarization. |
| 4. | A-V bundle (bundle of His) | 12. | tachycardia; bradycardia |
| 5. | Purkinje fibers | | |
| 6. | electrocardiogram | | |
| 7. | polarized | | |
| 8. | atria | | |

PART D

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|----|---|----|--|
| 1. | (labeled ECG recordings) | 5. | Because each QRS wave in the pattern indicates a ventricular contraction, the heart rate can be determined by counting the QRS waves that occur in a minute. |
| 2. | Answers will vary. | 6. | (experimental results) |
| 3. | Normal is 0.12–0.20 sec. | | |
| 4. | The P-Q (P-R) interval indicates the time it takes for the atria to depolarize and the cardiac impulse to reach the A-V node. | | |



Critical Thinking Application Answer