

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

- | | | | |
|----|----------------------------|-----|--|
| 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. | cardiac cycle | | |
| 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

LABORATORY EXERCISE 45 PULSE RATE AND BLOOD PRESSURE

Instructional Suggestions

The following suggestions should be considered when trying to obtain an accurate blood pressure:

1. The room environment should have a moderate temperature and be quiet (no talking).
2. The client needs to be relaxed and comfortable. A temporary increase in blood pressure could exist from smoking, pain, anxiety, or a full urinary bladder.
3. Palpate the pulse first so that you are certain to pump the cuff high enough to not miss the first tapping sound. It also assures that you do not pump the cuff so high that we alter the blood pressure when releasing air.

Laboratory Report Answers

PART A

- | | |
|---------------------|-----------------------------------|
| 1. arterial | 7. millimeters of mercury (mm Hg) |
| 2. systolic | 8. systolic |
| 3. diastolic | 9. pulse pressure |
| 4. heart | 10. diastolic |
| 5. pressure | 11. brachial |
| 6. sphygmomanometer | |

PART B

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|-------------------|-----------------------|
| 1. (test results) | 2. Answers will vary. |
|-------------------|-----------------------|

PART C

- | | |
|-------------------|-----------------------|
| 1. (test results) | 3. Answers will vary. |
| 2. (test results) | 4. Answers will vary. |



Critical Thinking Application Answer

A palpated pulse would be characteristic of the systolic pressure as the arterial wall is expanding at that moment under the higher pressure.