

**LABORATORY EXERCISE 39
CARDIAC CYCLE****Laboratory Report Answers****PART A**

1. 70
2. Systole
3. Diastole
4. Closed
5. Open
6. Ventricles
7. Vibrations
8. AV valves
9. Pulmonary and aortic valves (semilunar valves)
10. Murmur

PART B

1. (experimental results)
2. (experimental results)

PART C

1. Cardiac muscle
2. SA (sinoatrial; sinu-atrial)
3. AV (atrioventricular)
4. AV bundle (bundle of His)
5. Purkinje fibers
6. Electrocardiogram
7. Polarized
8. Atria
9. Ventricles
10. Ventricles
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.
12. Tachycardia; bradycardia

PART D

1. (labeled ECG recordings)
2. Answers will vary.
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 AV node.
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.
6. (experimental results)

**Critical Thinking Application Answer**

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**LABORATORY EXERCISE 41
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 | 6. Sphygmomanometer |
| 2. Systolic | 7. Millimeters of mercury (mm Hg) |
| 3. Diastolic | 8. Systolic |
| 4. Heart | 9. Pulse pressure |
| 5. Pressure | 10. Brachial |

PART B

- | | |
|-------------------|-----------------------|
| 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.