Anatomical Study of the Cardiovascular System

Experiment 25 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To identify the main structures of the cardiovascular system on models, charts or preserved teaching material.

Principle

Four chambers, valves, septa and great vessels. Structural relationships help explain the physiological function.

Structures and Functional Link

- Atrial and ventricular walls; atrioventricular and semilunar valves; aorta, venae cavae, pulmonary artery and veins.
- Systemic veins → right heart → lungs → left heart → systemic arteries.
- Arteries carry blood away from the heart; pulmonary arteries carry relatively deoxygenated blood.

Requirements

- Heart and major blood vessels model or chart
- Institution-approved preserved demonstration material if available
- Labelled drawing sheet

Procedure

1. Orient

Identify the anatomical position and major divisions of the model or chart.

2. Identify

Locate and label: Atrial and ventricular walls; atrioventricular and semilunar valves; aorta, venae cavae, pulmonary artery and veins.

3. Trace function

Systemic veins → right heart → lungs → left heart → systemic arteries.

4. Compare structures

Relate tissue or organ design to its major function.

5. Record

Draw a labelled schematic and explain the functional pathway in your own words.

Observations and Record

Structure / pathway	Identification / function
Main structures	_____
Inlet / outlet or connections	_____
Labelled drawing	_____
Functional pathway	_____
Structure-function explanation	_____

Result

The main structures were identified and labelled as _____. The functional pathway was explained as _____.

Precautions

- Handle museum material only as authorised.
- Use the provided orientation rather than assuming left/right from the viewer's position.
- Do not infer a patient diagnosis from the teaching model.

Viva Questions and Answers

1. Which structures should be identified?

Atrial and ventricular walls; atrioventricular and semilunar valves; aorta, venae cavae, pulmonary artery and veins.

2. What pathway should be traced?

Systemic veins → right heart → lungs → left heart → systemic arteries.

3. What key concept is illustrated?

Arteries carry blood away from the heart; pulmonary arteries carry relatively deoxygenated blood.

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