

Anatomical Study of the Endocrine System

Experiment 29 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

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

Principle

Ductless glands release hormones that regulate target tissues through the circulation. Structural relationships help explain the physiological function.

Structures and Functional Link

- Pituitary, thyroid, parathyroids, adrenals and endocrine pancreas.
- Hormonal signal → circulation → receptor-bearing target → response and feedback.
- Negative feedback helps stabilise many hormone-regulatory systems.

Requirements

- Major endocrine glands 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: Pituitary, thyroid, parathyroids, adrenals and endocrine pancreas.

3. Trace function

Hormonal signal → circulation → receptor-bearing target → response and feedback.

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.

Human Anatomy and Physiology

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?

Pituitary, thyroid, parathyroids, adrenals and endocrine pancreas.

2. What pathway should be traced?

Hormonal signal → circulation → receptor-bearing target → response and feedback.

3. What key concept is illustrated?

Negative feedback helps stabilise many hormone-regulatory systems.

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