

Microscopic Study of Connective Tissue

Experiment 7 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To recognise connective tissue in prepared histological sections.

Principle

Tissue identification links cell form and tissue arrangement to function. Cells are distributed in an extracellular matrix containing fibres and ground substance.

Requirements

- Authenticated prepared slides
- Compound microscope and labelled drawing sheet

Procedure

1. Survey

Focus at low power and identify a representative intact region.

2. Examine

Compare loose connective tissue with one assigned dense, adipose, cartilage or bone section.

3. Compare

Compare the assigned section with another tissue type and note the differences.

4. Draw

Draw a representative field and label: Cells, collagen or elastic fibres, matrix and the assigned specialised feature.

5. Interpret

Relate the observed structure to support, connection, storage or mechanical protection depending on the type.

Human Anatomy and Physiology

Observations and Record

Feature	Observation
Slide / stain / magnification	_____
Cell shape / nuclei	_____
Tissue arrangement / matrix	_____
Diagnostic feature	_____
Structure-function link	_____

Result

The section was recognised as _____ because _____. Magnification: _____.

Precautions

- Start at low power before using higher magnification.
- Do not confuse folds, tears or stain deposits with cell structures.
- Record what is visible rather than copying an atlas drawing as an observation.

Viva Questions and Answers

1. What is the main identifying pattern?

Cells are distributed in an extracellular matrix containing fibres and ground substance.

2. How does structure relate to function?

Support, connection, storage or mechanical protection depending on the type.

3. Why compare slides?

Comparison reveals which features distinguish one tissue from another.

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