

Microscopic Study of Epithelial Tissue

Experiment 3 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To recognise epithelial tissue in prepared histological sections.

Principle

Tissue identification links cell form and tissue arrangement to function. Closely packed cells arranged in sheets on a basement membrane with relatively little extracellular matrix.

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

Identify simple squamous, cuboidal and columnar examples, and a stratified epithelium on the supplied slides.

3. Compare

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

4. Draw

Draw a representative field and label: Cell shape, number of layers, free surface and basement-membrane boundary.

5. Interpret

Relate the observed structure to a lining or covering function; thickness and specialised surfaces fit local function.

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?

Closely packed cells arranged in sheets on a basement membrane with relatively little extracellular matrix.

2. How does structure relate to function?

A lining or covering function; thickness and specialised surfaces fit local function.

3. Why compare slides?

Comparison reveals which features distinguish one tissue from another.

Continue Learning with FirstHope

Complete Notes on the FirstHope App

Complete subject and semesters are available on FirstHope app only.

- Get complete subject and semester notes in the FirstHope app.
- Available for B.Pharm, D.Pharm, M.Pharm and Pharm.D students.

[Click here to get the FirstHope app](#)

Join the FirstHope Telegram Channel

Join FirstHope Notes and keep up with channel updates.

[Click here to join Telegram](#)

Instagram

@firsthope.official

[Click here to follow Instagram](#)

YouTube Channel

FirstHope-Pharmacy / Live streams

[Click here to watch the YouTube channel](#)

WhatsApp Channel

Follow FirstHope on WhatsApp.

[Click here to join the WhatsApp channel](#)

FirstHope Website

firsthopenotes.com

[Click here to visit the website](#)