Anatomical Study of the Respiratory System

Experiment 26 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

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

Principle

Conducting airways and the alveolar gas-exchange region. Structural relationships help explain the physiological function.

Structures and Functional Link

- Tracheal cartilage, bronchial branching, lung lobes and alveolar regions on an appropriate model.
- Nose → pharynx → larynx → trachea → bronchi → bronchioles → alveoli.
- Gas exchange depends on ventilation, diffusion and perfusion.

Requirements

- Nose, airway and lungs 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: Tracheal cartilage, bronchial branching, lung lobes and alveolar regions on an appropriate model.

3. Trace function

Nose → pharynx → larynx → trachea → bronchi → bronchioles → alveoli.

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?

Tracheal cartilage, bronchial branching, lung lobes and alveolar regions on an appropriate model.

2. What pathway should be traced?

Nose → pharynx → larynx → trachea → bronchi → bronchioles → alveoli.

3. What key concept is illustrated?

Gas exchange depends on ventilation, diffusion and perfusion.

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