

Introduction to Experimental Pharmacology

Experiment 1 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To understand and record the stated experimental-pharmacology concept.

Principle

Experimental pharmacology studies relationships between a drug, its concentration or exposure and a measured response.

Key Points

- Define hypothesis, control, comparator, endpoint and independent/dependent variables.
- Distinguish efficacy from potency and graded from quantal responses.
- Use only software simulations for the syllabus experiment activities.

Activity Procedure

1. Plan

Write a hypothesis for a virtual drug-response experiment.

2. Define variables

Identify the software input, measured endpoint and relevant control.

3. Observe

Read a supplied concentration-response dataset and identify the trend.

4. Interpret

State the conclusion and limitations without claiming a live experiment was performed.

Record and Observations

Field	Teaching record
Model / instrument / route	_____
Endpoint / units	_____
Relevant control	_____
Interpretation / limitation	_____

Result

The concept was explained and the teaching record completed. Key finding: _____. Limitation: _____.

Viva Questions and Answers

1. What is potency?

The concentration or dose needed to produce a defined effect.

2. What is efficacy?

The maximum effect achievable in the stated system.

3. Why include a control?

It provides a basis for interpreting the drug-associated change.

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