Syrups

Experiment 1 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To prepare, compare and label the formulations listed in this practical using the assigned formula.

Principle

A syrup is a concentrated aqueous sugar preparation. Dissolving, cooling and final volume adjustment affect clarity and concentration.

Requirements

- Assigned master formulas and ingredients for the formulations listed below.
- Balance, beakers, measuring cylinders, stirring equipment and compatible containers.

Procedure

1. Calculate and identify

List every ingredient, its role and the final batch size for each selected syrup.

2. Prepare the aqueous component

Dissolve water-soluble ingredients in the allotted water. Use heating only if allowed in that formula.

3. Combine with syrup

Mix in the stated sequence; incorporate flavour or volatile components after cooling as directed.

4. Adjust and evaluate

Bring to final volume at the stated temperature, mix and inspect for particles, crystallisation and change in colour.

5. Package and label

Transfer to a clean compatible container and enter preparation name, strength where applicable, quantity, route and assigned storage/use period.

Preparations in This Practical

Preparation	Formulation role / method distinction
Simple Syrup IP	Dissolve the assigned sugar quantity in purified water, using the formula-specified method. Cool before making up the final volume.
Ephedrine Hydrochloride Syrup NF	Dissolve the assigned medicinal ingredient separately in the stated water portion, combine with syrup and adjust to final volume. Confirm the authorised formula and strength.
Vasaka Syrup IP	Incorporate the prescribed Vasaka preparation into the syrup vehicle; follow the formula for extraction/prepared extract and clarification.
Ferrous Phosphate Syrup IP	Prepare the stated iron-containing solution in the formula sequence and combine with syrup; monitor precipitation and oxidation-related appearance.
Orange Syrup	Incorporate the specified orange flavour preparation without excessive heating; check clarity or the intended appearance.

Evaluation and Label

- Inspect clarity, crystals, colour, homogeneity and actual yield.
- Avoid prolonged heat that can change sugar or flavour components.

Observations and Record

Preparation	Batch size / yield	Appearance and checks
Simple Syrup IP	_____	_____
Ephedrine Hydrochloride Syrup NF	_____	_____
Vasaka Syrup IP	_____	_____
Ferrous Phosphate Syrup IP	_____	_____
Orange Syrup	_____	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Scale factor = required final quantity / quantity in the master formula.
- Illustration: a 100 mL formula scaled to 30 mL has factor 0.30; 5 g of an ingredient becomes 1.5 g.
- Percentage w/v means grams in 100 mL of final preparation; percentage w/w means grams in 100 g of final preparation.

Result

Record each preparation, formula version, actual yield, evaluation, container and complete label.

Precautions

- Record which official or college formula and strength were used. The historic IP, BP, BPC and NF titles in the syllabus do not establish a current market specification.
- Avoid confusing the amount of vehicle added with the final volume or mass.
- Use an appropriate route label; a teaching batch is not supplied to a patient.
- Inspect clarity, crystals, colour, homogeneity and actual yield.
- Avoid prolonged heat that can change sugar or flavour components.

Viva Questions and Answers

1. Why cool before final volume adjustment?

Liquid volume changes with temperature; final concentration must use a defined measurement basis.

2. Why can syrup crystallise?

Changes in water content or temperature can produce a supersaturated sugar solution.

3. Are all syrup strengths interchangeable?

No. The ingredient, strength and official formula must be identified.

First Hope

COMPLETE NOTES

Click here to visit our website

PHARMACY PRACTICAL NOTES

Complete subject and semesters are available on FirstHope app only.

Scan or click here

Click here to get the app >

Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram >

Scan or click here

@FirstHopeNotes

Instagram

@firsthope.official

Click here to follow >

YouTube channel

FirstHope-Pharmacy / Live streams

Click here to watch >

WhatsApp channel

Follow FirstHope on WhatsApp

Click here to join >

FirstHope website

firsthope.co.in

Click here to visit >

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Complete subjects and semesters are available in the FirstHope app.