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[illegible]

Aim :-

To study about various glasswares used in the pharmaceutical Laboratory.

Requirements :-

Glasswares.

Different types of glasswares used in laboratory are :-

1. Beakers :-

Glasswares used as a container. Beakers are simple cylindrical shaped containers.

A beaker is a glass container with a flat bottom and a small spout for pouring.

uses →

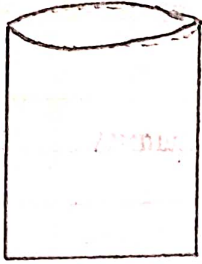
Beakers are used to hold reagent and sample. It is also used in laboratory for mixing, heating and stirring liquid.

(II) Funnel :-

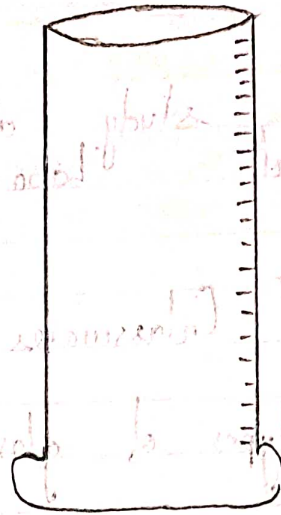
A funnel is a pipe with a wide mouth that help to pour substances in to a container without spilling.

uses :-

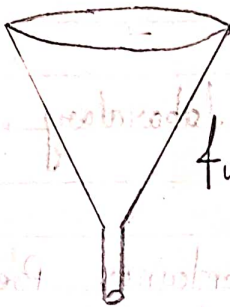
Funnel are used together with filter to separate a mixture.



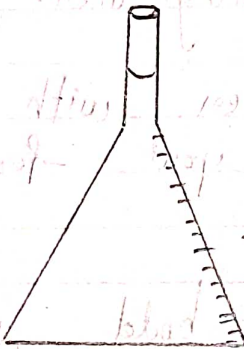
Beaker



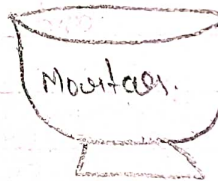
measuring cylinder



funnel



Conical flask



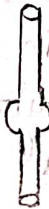
Mortar



pestle



Volumetric flask



glass rod

(iii) Measuring Cylinder :-

A tall skinny cylinders used to measure Volumes. It is generally a more accurate way to measure Volume than a.

uses :-

used to measure Volume.

iv. Mortar pestle :-

A mortar-pestle are used to crush and grind solid in to a powder. The mortar is a bowl and the pestle is a small club shaped tool. They are typically made from stone, Ceramic or glass.

Conical flask :-

It is a Conical shaped apparatus with a conical shaped body. A cylindrical shaped neck and a flat bottom. It generally has measurements marks on the side. The cone shaped helps to prevent spills when stirring the liquid.

uses :-

used for measuring vol. of liquid.

Volumetric flask.

Vol. flask are used to create precise quantities of solution. A graduation line is attached to the Volumetric flask neck to indicate Volume.

uses ÷

used ~~to~~ create precise quantities of Solution.

(VII) pipette ÷

It is a laboratory tool commonly used in laboratory to transport of measured vol of liquid.

(VIII) Glass Rod ÷

A glass rod is a piece of laboratory equipment used to mix chemicals and liquid for laboratory purpose. They are usually made of glass about the thickness and slightly longer than a drinking straw, with rounded ends.

Aim :

To prepare and submit 50 ml of simple Syrup I.P.

Reference -

Groud R.S Gupta G.D. "practical pharmaceuticals",
C.B.S. publications and Distribution, 1st edition
2002.

Requirement -

Chemical - Sucrose, purified water.

Apparatus - weight balance, Beaker, Measuring cylinder, Glass Rod.

Theory :

Syrups are concentrated nearly saturated solution of Sucrose in purified water. It may or may not contain medicinal substances. It has sweet taste and acts as a good flavouring agent.

Procedure -

1. Measures the required amount of Sucrose and transfer it in a beaker.
2. Add sufficient amount of water.
3. Make the syrup by heating or without heating.
4. If necessary, filter the syrup.
5. Store in a dried container with proper label.

Formula -

S. No.	Ingredient	Qty given	Qty Taken
1.	Sucrose	66.7 gm	33.3 gm
2.	purified water	9.5 100 ml	95.500 ml.

Simple syrup I.P

Ingredient		Batch No.
1. Sucrose	33.3 gm	Bp 125
2. purified water	9.5 50 ml.	MFG Date 12/10/22
		Exp. Date 12/10/23
		prepared by Vijay Kumar

Store in loosely stoppered bottle at fairly cool temp.

Category = 7 pharmaceutical Acid.

Uses: $\Rightarrow$ As a sweetening agent sweet Vehicle
As the base for other syrup.

Category :-

pharmaceutical Aid (as a sweetening agent)

Storage :- Syrup should be stored in a loosely stoppered bottle at a fairly cool temperature.

uses :- pharmaceutical aid as a sweetening agent sweet vehicle and used as the base for various flavoured and medicinal syrups.

Result.

The simple syrup was prepared and submitted successfully.

Aim.

To prepare and submit 50 ml of Aqueous Iodine solution.

Reference -

Grand R.S Gupta G.D. "Practical pharmacetics"
CBS publication and Distribution 1st edition
2002 page no. 180.

Requirement -

Chemicals - Iodine, potassium Iodide,
purified water.

Apparatus -

weighing balance, Beaker, glass, Rod,
measuring cylinder.

Theory -

A Solution is an homogenous one-phase system consisting of 2 or more components it contains 2 phase i.e. solvent and solute. The solvent is the phase in which the dispersions occur & solute is that component in which is dispersed as small ions or molecules in the solvent.

Procedure:- 1. Measure the required amount of ingredients.
2. Dissolve potassium Iodide & Iodine in 10 ml of purified H₂O.

S.N.	Ingredients	Qty - Given (100 ml)	Qty - Taken (150 ml)
1.	Iodine	5 gm	2.5 gm
2.	Potassium Iodide	10 gm	5 gm
3.	Purified water	2.5 : 100 ml	7.5 : 150 ml

Aqueous Iodine Solution (50 ml)

Ingredients:

Iodine — 2.5 gm.

Potassium Iodide 5 gm.

Purified water. q.s. 50 ml

Batch:

MFG Date: 02/11/22

Exp Date: 02/11/23

prep. by: Vijay Kumar.

preserve in a well closed container, it should be resistant to iodine

Category: Source of Iodine.

User: Source of Iodine.

Dose: 0.3 to 1 ml.

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3. Add sufficient amount of purified water to procedure. 100 ml or 50 ml solution.

Category - Source of Iodine.

Dose - 0.3 to 1 ml.

uses - Source to Iodine.

Storage -

Preserve aqueous iodine solution in a well closed container, it should be resistant to iodine.

Result $\Rightarrow$ The aqueous iodine solution was prepared & submitted successfully.

Teacher's Signature _____

Aim -

To prepare and submit 50 ml of calamine lotion.

Reference :- Gaud R.S Gupta. G.D. Practical Pharmaceutics
CBS publishers and Distributors, 1st edition 2002,

Requirement :-

Chemicals :- Calamine, Zinc oxide, bentonite
Sodium citrate, liquid phenol, glycerine, rose water.

Apparatus -

Beaker, mortar and pestle, spatula,
measuring cylinder etc.

Theory -

Lotion are usually liquid or liquid suspensions or semi-solid preparations containing one or more medicaments, intended to be applied to the unbroken skin without friction.

⇒ Calamine is a basic Zinc Carbonate suitably coloured with ferric oxide. It is used as a mild astringent. Bentonite is a colloidal hydrated aluminium silicate and act as a suspending agent. Zinc oxide acts as sedative and protective of skin, phenol is used as antiseptic and preservatives, glycerin has soothing effect. Rose water is used as vehicle and flavouring agent.

S.N.	Ingredients	Qty. Given (100) ml	Qty. taken (50) ml.
1.	Calamine.	15 gm.	7.5 gm.
2.	Zinc oxide	5 gm.	2.5 gm.
3.	Bentonite.	3 gm.	1.5 gm.
4.	Sodium Citrate.	0.5 gm.	0.25 ml.
5.	Liquified phenol	0.5 gm.	0.25 ml.
6.	Glycerine.	5 ml.	2.5 ml.
7.	Rose water.	q.s. (100) ml.	q.s. 50 ml.

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• Procedure :-

1. Prepare sodium citrate solution in 70ml rose water or 20 ml in 50 ml case.
2. Librate Calomine, Zinc oxide and bentonite with citrate solution.
3. Add liquidified phenol and mix.
4. Add glycerine and sufficient rose water to produce 50 ml.

Result :-

Calamine lotion was prepared and submitted successfully.

Aim —

To prepare and submit Talc Dusting powder.

Reference :

Grand R.S., Gupta G.D. "Practical pharmacology" CBS publishers and Distributors, 1st Edition 2002, pg no. 176.

• Requirements $\rightarrow$ Chemicals —

powder purified Magnesium oxide, starch sterilized talc.

• Apparatus — weighing balance, mortar - pestle, spatula etc.

• Theory —

Powders are one of the oldest dosage forms. A pharmaceutical powder is a mixture of finely divided drugs or chemicals in dry form. They are intended for internal or external use for many diseases.

• Procedure $\rightarrow$

1. weigh the req. amount of ingredients
2. Mix additives in mortar and pestle and mixed it uniformly.
3. After proper mixing, dispensed in a suitable container.

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• Category :- Pharmaceutical Aid, Dusting powder.

• Storage :- Preserve in a well closed container in a wide mouthed bottle.

• Use :- Pharmaceutical Aid, Dusting powder.

• Result :- The talc dusting powdered was prepared and submitted successfully.

Teacher's Signature _____

Aim - To prepare and submit Cold cream.

Reference :-

Gravel R.L. Gupta G.D. practical
pharmaceutics C.R.S. publishers and distributors 1st
edition 2002 page no -

Requirements :-

Chemicals - white beeswax, liquid paraffin
borax, Glycerine, methyl paraben, propyl paraben, orange oil,
purified water.

Apparatus :- Beakers, weighting balance, Heating plate,
glass rod, etc.

Theory :-

Creams are viscous, semi-solid emulsions
which are meant for external use. They usually
contain a water-soluble base, due to which
they can be easily removed from the skin.
They are of softer consistency and have light
weight in comparison to some ointments when
applied to the skin.

Procedure :-

1. Oil phase preparation :-

White beeswax and liquid
paraffin were melted in a beaker at 70-80
C and mixed.

S. No.	Ingredients	Qty. Taken (100) ml.
1.	white beeswax.	24.50 gm.
2.	Liquid paraffin.	50 m
3.	Borax.	1 gm
4.	Glycerin.	4.28 ml.
5.	methyl paraffin.	0.02 gm.
6.	propyl paraffin.	0.02 gm.
7.	Orange oil.	0.50 ml.
8.	purified water q.s. to	100 ml.

Formula —

S. No.	Ingredients	Qty: Taken (100 ml)
1.	white bees wax	24.50 gm.
2.	Liquid paraffin	50 ml.
3.	Borax	1.00 gm.
4.	Glycerin	4.20 ml.
5.	methyl paraben.	0.02 gm.
6.	propyl paraben.	0.02 gm.
7.	Orange oil.	0.50 ml.
8.	purified water	100 ml.
	q.s to	

2. Aqueous phase preparation :-

paraben, barax and glycerin were dissolved in water in another beaker at the temperature $70-80^{\circ}\text{C}$.

Methyl paraben, propyl

3. Addition of Aqueous phase to oil phase :-

The oil phase was then added to the aqueous phase with continuous stirring untill it has cooled to about 45°C . Then fragrance was added with continuous stirring.

Filling, Labelling and packaging.

Category :- Semi-solid emulsions.

Storage :-

Store at the a temperature not exceeding 30°C protect from light.

uses :- Protective cleansing retention of moisture.
Emollient etc.

Result :-

The Cold Cream was prepared and submitted successfully.

Aim —

to prepare and submit simple ointments.

Reference —

Grand R.S Gupta G.D. practical
pharmaceutics CBS publishers and distributors 1st
edition 2002 page no - 110.

Requirement —

Chemicals —

paraffin used for Cetylalcohol hard
white soft paraffine.

Apparatus —

Beaker glass rod mortar - pestle weight
balance etc.

Theory —

Ointments are semisolid preparations for application to skin or mucous membrane. They are often anhydrous and contain the measurement either dissolved or dispersed in vehicle. The solid substances which are dispersed should be in the form of a microorganised powder. Ointments are typically used as emollient protectant and vehicles to incorporate medicament.

Procedure :-

1. Mix wood bat Cetastearyl alcohol hard paraffin and white soft paraffin in a Container.
2. Heat the mixture gently with stirring until homogeneous.
3. Sterilise continuously until cold.

Category -

Pharmaceutical

Aid.

used -

Use as pharmaceutical aids.

Results :-

The simple ointment was prepared and submitted successfully.

Aim —

to prepare and Submit Sulphur ointment .

Reference —

Grand R.S., Gupta G.D " Practical pharmaceutical CBS publishers and Distributor 1st edition 2002 , page no - 121 .

• Requirements —

• Chemicals → Precipitated Sulphur , Simple ointment

• Apparatus → Mortar pestle , Spatula , weighing balance etc .

Theory →

Ointments are semi-solid preparation for application to the skin or mucous membrane. They are often anhydrous and contain the medicaments either dissolved or dispersed in the vehicle. The solid substances, which are dispersed, should be in the form of a micronized powder.

Procedure →

1. Intimate the precipitated Sulphur with portion of the Simple ointment until smooth.

Sulphur ointment

Ingredients

Batch no -

B.P.I. 23

Precipitated

Sulphur - 1 gm

MFG Date -

12/01/23

exp Date -

12/01/24

Simple ointment

- gm

Prepared by - Vijay Kumar

preserve in a

well-closed

Container, protected

from

light.

Category -

Scabicide

Use

Scabicide

2. Add gradually the remainder of the Simple ointment and mix thoroughly.

• Category :- Scabicide.

• Storage :- Preserve in a well closed container protect from light.

• Uses :- Scabicide.

Result :-

The Sulphur ointment was prepared and Submitted Successfully.

Aim -

To prepare and submit O.R.S powder (W.H.O)

Reference -

Book : Gaur R.S. Gupta G.D. "Practical pharmaceutical CBS publishers and Distributors" 1st edition 2002, page no - 77-78.

Requirement -

Chemicals -

1. Sodium chloride - 8.5 gm.
2. potassium chloride - 1.5 gm.
3. Sodium Citrate - 2.9 gm.
4. Dextrose mono hydrate - 22 gm.

Apperatus -

1. wt, Balance, Spetula, and mortar-pestle.

Theory -

Oral Rehydration salts (ORS) are drug, homogeneously mixed oral salts (powders) containing either anhydrous dextrose and either Sodium monohydrate, Sodium chloride, potassium chloride & either Sodium Citrate or Sodium bicarbonate. After being dissolved in the requisite volume of water, they are intended for the prevention and treatment of dehydration.

Teacher's Signature _____

due to diarrhea, including maintenance therapy. They are colourless, while the Creamy, white amorphous or crystalline powder.

• Procedure $\Rightarrow$

Finely powdered the ingredients mentioned in the formula separately mortar-pestle.

• Then weighed accurately the req. quantity of each ingredient and blend them by geometric dilution in ascending order of weights.

• Dose - As directed by physician.

• Storage - Store in air tight sachet in a dry and cool place.

• Label - Solution prepared from the ORS powder that remains un used for 24 hours after preparation should be discarded.

• Uses - used for Rehydration and non-choleric diarrhea.

• Result :- The ORS was prepared and submitted successfully.

Formula $\frac{a}{b}$

S. No.	Ingredients	Qty. Given (100 ml)	Qty. Taken (50ml)
1.	potassium Iodide.	2.5 gm.	1.25 gm
2.	Iodine.	2.5 gm.	0.625 gm
3.	Ethanol (90%)	1.25 gm.	2 ml
4.	peppermint oil.	4 ml.	0.2 ml.
5.	purified water.	0.4 ml	1.25 ml
6.	Glycerin.	2.5 ml	q.s. 50ml.
	Sufficient to produce.	q.s. 100 ml.	

- Aim :- To prepare and submit 50 ml of Iodine Throat paint.
- Synonym :- mandless paint.
- Reference :- "Grand R.S Gupta G.D." practical pharmaceuticals" CBS publisher and Distributors, 1st edition, 2002 page no - 294 - 295.
- Requirements :- Chemicals :-
(90%) peppermint oil, potassium Iodide, Iodine, Ethanol purified water, glycerin, etc.
- Apparatus :- Mortar - pestle, spatula, Measuring cylinder etc.
- Theory :- paints are liquid preparations intended for application to the mucous membrane or skin. They usually contain substances possessing analgesic, antiseptic or astringent properties.
- In this preparation Iodine acts as antiseptic, potassium Iodide dissolves the Iodine, peppermint oil acts as flavouring agent and produce cooling effect. Alcohol is used as a solubilising agent of the peppermint oil. This preparation contains Iodine, hence should be prepared in glass apparatus.
- procedure :- Dissolve potassium Iodide and Iodine in purified glass mortar and pestle.

Iodine point.

Ingredients :-

potassium Iodine - 125 gm

Iodine - 0.625 gm

Ethanol (90%) - 2 ml.

peppermint oil - 0.2 ml

Glycerin - 1.25

water - q.s

Batch no - 127

MFG Date - 7/04/23

exp. Date - 7/04/25

prepared by -

Vijay Kumar

Category :- Antiseptic

storage :- store in air tight container in cool

uses :- Antiseptic throat point. (place)

Add a small portion of glycerin.
Add peppermint oil dissolve in ethanol and mix.
Add sufficient glycerin to produce 100 ml or 50 ml.

• Category ÷ Antiseptic.

• Storage ÷ Store in an air-tight container in cool place.

• Label ÷ Shake well before use.

• Uses ÷ Antiseptic throat paint.

• Result ÷

The Iodine throat paint was prepared and submitted to successfully.

S. No.	Ingredients	Qty. Given for 100 ml.
1.	Fresh orange peel in the Slices	25 gm.
2.	Ethanol - 90%.	q.s. 100 ml.

• Aim :- To prepare and submit 100 ml of orange tincture by maceration method.

• Reference :- Gupta G.D. Sharma Shailesh, Sharma. Neelam, "practical manual of pharmaceutics - I, " Nirali prakashan, 2nd Edition, 2017. page no - 26-27.

• Requirements :- chemicals :- Orange peel, alcohol.

• Apparatus :- Stopper Containers, weighing balance, etc.

• Theory :- Tincture is defined as alcoholic or hydroalcoholic solution prepared from Vegetable materials or from chemical substances. Tinctures are generally by 2 methods :-

1.) percolation

2.) Maceration.

• Formula :-

B.No. _____ Ingredients qty. Given for 100 ml.

1. Fresh orange peel in the slices. 25 gm

2. Ethanol (90%) q.s. 100 ml.

• procedure :-

1. The solid substances are weighed and placed in a stopper container with the whole of the solvent.

Orange Tincture

Ingredients :-

Fresh orange in the
slices - 25 gm

Ethanol - 9.5 100 ml.

Batch no. - 1160

MFCU Date - 16/04/2023

exp - Date - 16/04/2025.

prepared by - Vijay Kumar.

Dose - 2.4 ml.

storage - preserve in a well closed Container.

uses - Flavouring Agent.

2. It is allowed to stand for a period of at least 9 days. Then the solvent is strained and more is pressed and combined with extract liquid.

• Dose $\div$ 2 - 4 ml.

• Storage $\div$ preserve in a well-closed container.

• uses $\div$ It is used as a flavouring agent.

• Result $\div$ The Orange tincture was prepared and Submitted Successfully.

S. No.	Ingredients	Qty given (100 ml)	Qty Taken (50 ml)
1.	Liquid paraffin.	50 ml.	25 ml
2.	Indian gum or powder	12.5 gm.	6.25 gm.
3.	Tragacanth in powder	0.5 gm.	0.25 gm.
4.	Sodium benzoate	0.5 gm.	0.25 gm.
5.	Vanillin.	0.05 gm.	0.25 gm.
6.	glycerin.	12.5 ml.	6.25 ml.
7.	chloro form.	0.25 ml.	0.125 ml.
8.	purified water.	q.s. 100 ml.	q.s. 50 ml.

- Aim :- To prepare and submit 50 ml of Liquid paraffin Emulsion.
- Reference :- Gaud R.S, Gupta G.D. "practical pharmaceuticals CBS and Distributors, 1st Edition 2002, page no - 76.
- Requirements :-
Chemicals :- Liquid paraffin, Indian gum powder, Tragacanth powder, Sodium benzoate, Vanillin, Glycerin, Chloroform, purified water.
- Apparatus :- Beaker, mortar, pestle, weighing balance, measuring cylinder, etc.

Theory :-

Emulsion is a heterogeneous system consisting of at least one immiscible liquid dispersed in another in the form of droplets. The liquids droplets generally as the emulsion phase or emulsion globules or dispersed phase while the liquid in which they are dispersed is known as the continuous phase.

procedure :-

1. Triturate the weighed quantity of liquid paraffin and chloroform with the Indian gums, Tragacanth and vanillin in mortar - pestle.

Liquid paraffin Emulsion.

Liquid paraffin - 25 ml.

Indian gum in powder - 6.25 g.

Tragacanth in powder - 0.25 gm

Sod. Benzoate - 0.25 gm gm.

Glycerin - 0.25 gm.

Chloroform - 0.125 g.

Purified water - q.s - 50 ml.

Category - Laxative.

Dose - A - 30 ml.

Storage - Emulsion should be kept at temp. not 20°C .

2. Add 25 ml of purified water and triturate until a Creamy emulsion is formed.
 3. Dissolve Sodium benzoate in Small quantity of purified water.
 4. Add glycerine and solution of Sodium benzoate with Continuous triturate.
- Dose $\div$ 0 - 30 ml.
 - Category $\div$ Laxative.
 - Storage $\div$ Emulsion should be kept at temp. not exceeding 20°C , it should not be allowed to freeze.
 - Use $\div$ Laxative.
 - Results $\div$
The liquid paraffin Emulsion was prepared and Submitted Successfully.

Aim $\div$ To prepare and submit 50 ml of chloroform water.

Reference $\div$ Gupta G.D. Sharma Shailesh, Sharma Neelam. practical manual of pharmaceuticals - 1 Nisali prakashan, 2nd Edition, 2014, page No - 2 - 3.

Requirements $\div$

Chemicals $\div$ chloroform, purified water.

Apparatus $\div$ Beaker, measuring cylinder, glass rod, etc.

Theory $\div$

Aromatic water are clear, saturated aqueous solution of Volatile oils or Volatile substances. Taste and odours of aromatic waters are similar to the drug are Volatile substance which may incorporate in them.

Chloroform is a clear, odourless and a mobile liquid with ether odour and has burning sweet taste.

procedure $\div$

1. Measure the required amount of chloroform and dissolve it in purified water by shaking.
2. Shake until chloroform is completely dissolved in water.
3. Transfer it in clean amber Colours Containers and close it tightly.

Teacher's Signature _____

Formula $\rightarrow$ %

S. No	Ingredients	Qty. Given (100ml)	Qty. taken (50ml)
1.	Chloroform	0.25 ml.	0.12 ml.
2.	purified water	q.s. 100 ml.	q.s. 50 ml.

Chloroform water

Ingredients :-

Chloroform water - 0.12 ml.

Purified water - q.s - 100 ml.

Batch no - 698.

MFG. Date - 23/04/23

exp. Date - 23/04/25

prepared by - Vijay Kumar

Category - pharmaceutical aid.

Storage - protect from light.

Uses - preservative etc.

Category $\rightarrow$ pharmaceutical Aid.

Dose $\rightarrow$ 15-30 ml.

Storage $\rightarrow$ store in a well-closed amber Colours Containers and protect from light.

Uses $\rightarrow$ pharmaceutical Aid. preservative, Vehicle, general Anaesthetic.

Result $\rightarrow$ The chloroform water was prepared and submitted successfully.

Aim :- To prepare and submit 50 ml of Camphor water.

Reference :- Gupta. G.D. Sharma Shailesh, Sharma neelam, practical manual of pharmaceuticals - I Nisali prakashan 2nd Edition. 2014, page - no - 7.

Requirements :-

Chemicals $\rightarrow$ Camphor, Ethanol, purified water.

Apparatus :- Dropper measuring cylinder, weighing, balance
Beaker, glassed,

Theory :-

Aromatic waters are clear, saturated aqueous solution of Volatile oils or Volatile substance. Taste and odour of aromatic waters are similar to the drug or Volatile substance which they incorporate in them.

Camphor is a Ketone. obtained from Cinnamomum Camphora. It is Colourless or white Crystals or Crystalline mass. It is highly Volatile in nature at room temperature and readily burns with a bright smoky flame.

procedure :-

1. Measured the required amount of Camphor and dissolve it in ethanol.

2. Add this alcoholic solution drop-wise in purified water in with shaking.

Formula.

S. No.	Ingredients	Qty - Given (100ml)	Qty - taken (50ml)
0.1	Camphor -	0.10 gm.	0.05 gm.
0.2	Ethanol	0.20 ml.	0.10 ml.
0.3.	purified water.	q.s 100ml.	q.s. 50 ml.

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Camphor mixture.

Ingredients —

Camphor — 0.05 gm.
ethanol (90%) — 0.10 ml.
purified water — q.s 50 ml.

Batch no —

MFG Date — 1/05/2023

Expi Date — 1/05/2025

prepared by — Vijay Kumar.

Category — pharmaceutical Aid.

Dose — 15 — 30 ml.

Storage — store in well-closed Container.

3. Shake well, all the compo has dissolved.

4. If necessary, filter the solution and store in a closed container.

Category :- pharmaceutical Aid.

Dose :- 15-30 ml.

Storage :- store in a well-closed container.

uses :- pharmaceutical Aid, vehicle and used as (primative and to relieve).

Result :- The Compo was prepared and submitted successfully.

Aim :-

To prepare and submit 50 ml of peppermint spirit.

Reference :-

Gupta G.D. Sharma Shailesh, Sharma, Neelam
practical manual of pharmaceuticals. I - Nishadi prakashan
2nd Edition, 2014 page no - 18-19.

Requirements :-

Chemicals :- peppermint oil, Ethanol (90%)
distilled water.

Apparatus :-

Beaker, Spatula, Measuring cylinder, etc.

Theory :-

Spirits are alcohols or hydroalcoholic solutions of volatile substances and contain 50% to 90% of alcohol. The high alcoholic content maintains water-insoluble oils in solution. If water is added to a spirit, the oil gets separated. Spirits are prepared by dissolving or by distillation method.

→ Peppermint oil is obtained by distillation from the fresh over ground parts of the following plants of mentha piperita.

Formula.

S.No	Ingredients	Qty - Given (100ml)	Qty. taken (50ml)
1.	peppermint oil.	10 ml.	5 ml.
2.	Ethanol 90%.	q.s 100 ml	q.s 50 ml.

Peppermint	Spirit.
Ingredients :- peppermint oil - 5ml. ethanol (90%) - q.s - 100 ml.	Batch no - 794. MFG Date - 01/01/2025 Exp. Date - 01/01/2025 preparing - Vijay Kumar
Category - Flavouring agent.	
Dose - 1 ml three times a day.	
Storage - store in a well closed container.	

procedure $\rightarrow$

1. Take measured quantity of peppermint oil and mix with ethanol.

2. If the solution is not clear, shake with purified talc 5% and filter it.

3. Add sufficient amount of ethanol to make up the volume.

• Category $\rightarrow$ flavouring agent and Carminative.

• Dose $\rightarrow$ usually 1 ml three times a day.

Storage $\rightarrow$ Store in a well-closed container and in a cool place.

uses $\rightarrow$ It is used as flavouring agent. Carminative, antiseptic and Local anaesthetic.

Result $\rightarrow$ The peppermint spirits were prepared and submitted successfully.