

Experiment No-1

Aim :-

To study the different Glass wares used in Pharmaceutical lab.

Reference :-

From Internet → (i) wikipedia
(ii) Ducksters.com
(iii) Sciencing.com

Requirements :-

Beaker funnel, measuring cylinder, marked pastel, Conical flask, and Volumetric flask.

Beaker :-

Glasswares used in as a container beakers are simply cylindrical shaped containers. A Beaker is a glass container with a flat bottom and a small spout for pouring.

uses ⇒ Beaker are used to hold reagent and sample. It is also used in lab for mixing heating and stirring liquid.

Funnel ⇒

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

uses:-

Funnel are used together with filters to separate a mixture.

measuring cylinder:-

A tool SKINNY cylinder used to measure volumes. It is generally a more accurate way to measure volume than a beaker or flask.

uses:- used to measure volume.

mortar Pestle :-

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

used:- used for size reduction

Conical flask :-

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

uses $\Rightarrow$ used for measuring purpose:-

Volumetric flask :-

Volumetric flask are used to create precise quantities of solutions. A graduation ~~time~~ line is etched into the volumetric flask's neck to indicate volume and the lab worker begins to fill the flask by first adding the solute. She continues by pouring in her solvent and then gradually adds drops of graduated line.

Uses :-

used to create precise quantities of solutions.

Result $\Rightarrow$ The different glassware used in Pharmaceutical lab. was studied.

Experiment No. 2 (Aromatic water)

Aim :-

To prepare & Submit 50ml of Chloroform water.

Reference:- Gupta G.D., Sharma Shailish, Sharma Neelam, "Practical manual of Pharmaceutics - 1", Nirali Prakashan, 2nd Edition, 2017, Page No, 2-3.

Requirements: Chemicals - Chloroform, Purified water.

Apparatus - Beaker, measuring cylinder, Glassrod etc.

Theory:- Aromatic water are clear, saturated aqueous sol of volatile oils or volatile substance. Taste & odours of aromatic waters are similar to the drug or volatile substance which may incorporate in them.

→ Chloroform is a clear, ^{odorless} and a mobile liquid with ether odour & has burning sweet taste.

Formula:

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

CHLOROFORM WATER (50ML)

INGREDIENTS

1. CHLOROFORM — 0.2 ML
2. Purified water — 2.5. 50ML

BATCH No - 02

MFG DATE - 9-10-21

EXP DATE - 8-09-22

PREPARED BY - Mohd. Hozefa

STORE IN A WELL CLOSED AMBER COLOR CONTAINER AND PROTECT FROM LIGHT

CATEGORY - PHARMACEUTICAL AID

DOSE - 15-30ML

USES - Pharmaceutical Aid, Preservative, vehicle.

Procedure:-

1. Measure the required amount of Chloroform & dissolve it in purified water by Shaking.
2. Shake until Chloroform is completely dissolved in water.
3. Transfer it in Clean amber Colour Container & Close it tightly.

Category:- Pharmaceutical Aid

Dose:- 15 - 30 ml

Storage:- Store in a well-closed Amber Colour Container & protect from light.

Uses:- Pharmaceutical Aid, Preservative, Vehicle, General, Anesthetic

Result:- The Chloroform water was prepared & submitted successfully.

Experiment No-3 (Syrups)

Aim -> To prepare & submit 50ml of Simple Syrup.

Reference:- Gaud R.S, Gupta G.D, "Practical Pharmaceutics",
CBS Publishers & Distributors, First Edition 2002,
Page no - 229 - 230.

Requirements:- Chemicals → Sucrose, Purified water.

Apparatus - Beaker, Glass rod, Measuring Cylinder.

Theory - Syrups are concentrated nearly saturated solution of sucrose in purified water, It may or not contain medicinal substances. It has sweet taste & act as a good flavouring agent.

Formula →

S.No	Ingredients	Quantity given (100ml)	Quantity taken (50ml)
1.	Sucrose	66.7 gm	33.3 gm
2.	Purified water	q.s 100ml	q.s 50ml

SIMPLE SYRUP (50ml)

INGREDIENTS

1. SUCROSE
2. PURIFIED WATER-

BATCH No - 02

MFG DATE - 11-10-2021

EXP DATE - 10-9-2022

PREPARED BY - MAHA MUZEERFA

STORE IN A LOOSELY STOPPERED BOTTLE AT
FAIRLY COOL TEMPERATURE

CATEGORY - PHARMACEUTICAL AID SWEETENING AGENT

USES - AS A SWEETENING AGENT

Procedure:-

1. Measure the required amount of sucrose and transfer it in a conical flask/Beaker.
2. Add sufficient amount of water.
3. Make the Syrup by heating or without heat.
4. If necessary filter the syrup.
5. Store in a dried container with proper label.

Category :- Pharmaceutical Aid (Sweeting agent)

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

Uses :- Pharmaceutical aid as sweetening agents.
Sweet vehicle and used as
the base for various flavoured and medical syrups.

Result :- The simple syrup was prepared & submitted successfully.

S.No	Q.TY Given
1. Magnesium oxide	0.50 gm
2. Starch in powder	4 gm
3. Purified sterilized Talc	10 gm

Talc Dusting Powder

INGREDIENTS	BATCH NO - 02
1. MAGNESIUM OXIDE - 0.50 gm	MFG NO - 12-10-021
2. STARCH IN POWDER - 4 gm	EXP NO - 11-9-022
3. Purified Sterilized Talc - 10 gm	PREPARED BY - MOD. HUZFAIFA

STORE IN A WELL CLOSED CONTAINER IN A WIDE MOUTHED BOTTLE

CATEGORY - Pharmaceutical Aid, DUSTING POWDER

USES - Pharmaceutical Aid.

Experiment No- 04 (Powders)

Aim $\Rightarrow$ To prepare Submit Talc dusting Powder.

Reference :- "Grand R.S, G.P. Practical Pharmacutics" CBS Publishers Distributors, 1st Edition, 2002 Page no- 176

Requirements :- Chemicals - Magnesium oxide, Starch powder
Purified 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 forms. They are intended for internal or external use for many diseases.

Formula:-

S.no	Ingredients	Qty. Given
1	Magnesium oxide	0.50 gm
2.	Starch in Powder	4 gm
3.	Purified sterilized talc	10 gm

Procedure:- weigh the required amount of ingredients.

1. Mix additives in mortar pestle & shake it uniformly After prepare mixing.

2. Dispensed in a suitable container.

(category) = Pharmaceutical Aid, dusting powder.

Storage = Measure in a well-closed container in a wide-mouthed bottle.

uses:- Pharmaceutical Aid,
Dusting powder.

Result:- The Talc dusting powder was prepared & submitted successfully.

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Experiment No-5

Aim → To Prepare And Submit Simple elixir

Reference → Gaud R.S, Gupta G.D "Practical Pharmaceutics"
CBS Publishers and distributors Ist edition, 2002, Page No-55

Requirements → Chemicals → orange tincture, Syrup, Chloroform
Apparatus - measuring cylinder, weighing balance, Beaker

Theory → Elixirs are clear, liquid flavoured hydroalcoholic preparation intended for oral use. They contain one or more medicaments, pleasantly flavoured, usually attractive colour containing high proportion of alcohol or sucrose.

Procedure →

- ① Mix orange Tincture with the Syrup.
- ② Add Sufficient Chloroform water to produce 100ml
- ③ Add 5.0g of Purified Talc And Shake Vigorously.
- ④ Stand for a few hours And Shake occasionally.
- ⑤ Filter the elixir and Preserve in a Suitable Container

Category → Pharmaceutical aid.

Dose → 4 to 8ml

Storage → Preserve in a well-closed container.

Uses → Pharmaceutical Aid.

Formula -

S.No	Ingredients	Qty Given
1	Precipitated Sulphur	1gm
2	Simple ointment	1gm

SULPHUR

OINTMENT

Ingredients

1. Precipitated Sulphur - 1gm
2. Simple ointment - 1gm

BATCH No - 02

MFG DATE - 26-12-2021

EXP DATE - 25-11-2022

Prepared by - MOHD. HUSSEIN

Storage - Preserve in a well closed container Protected from

Category - Scabicide

USES - Scabicide

Experiment - 6

Aim → To prepare & Submit Sulphur ointment.

Reference → Gaud R.S Gupta G.D "Practical Pharmaceutic"
CBS Publishers & Distributors, 1st Edition 2002

Apparatus - Mortar-pestle, Spatula, weighing Balance - etc.

Theory - Ointments are semi-solid preparation for application to the skin or mucous membranes. They are often anhydrous & contain the medicament

Formula: either dissolved or dispersed in the vehicle.

S.No	Ingredients	Qty. Given
1.	Precipitated Sulphur	1 gm
2.	Simple ointment	9 gm

- Procedure → 1. Triturate the precipitated sulphur with a portion of the Simple ointment until smooth.
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 & Submitted Successfully.

Ingredients formula

Ingredients	Qty taken
Sodium Chloride	10gm
Potassium Chloride	15 gm
Sodium bicarbonate	15 gm
Dextrose	2 gm

ELECTROLYTES

INGREDIENTS	BATCH No - 02
Sodium chloride - 10gm	MFG - 26-11-2022
Potassium chloride - 15gm	EXP DATE - 26-10-2022
Sodium chloride - 15gm	Prepared BY - MHA MUZEAFI
Dextrose - 2gm	

STORAGE - Keep INDIVIDUAL POWDER within an inner wax paper or an outer covering of METAL foil or Disposed in Individual well closed container.

CATEGORY - Pharmaceutical Aid

DOSE - In accordance with the needs and response of the patient.

USES - Used for electrolytes and dehydration

Good

Experiment - 7

Aim → To Prepare And Submit Compound Sodium Chloride and dextrose oral Solution.

Synonyms → Electrolytes.

Reference → Govil R.S., Gupta G.D "Practical Pharmaceutics"
CBS Publishers And distributors, 1st edition
2002, Page no - 183

Requirements → Chemical - Sodium Chloride ^{10gm}, Potassium Chloride ^{15gm}, Sodium bicarbonate ^{2gm}, dextrose
Apparatus - mortar-pestle, weighing balance
Spatula.

Theory ⇒ Powders are one of the oldest dosage forms.
A Pharmaceutical Powder is mixture of finely divided drug or chemical in dry forms. They are intended internal or external use for many disease.

Procedure →

1) Mix weighed amount of substance in ascending order of its weight.

2) Wrap Individual Powder using an inner waxed paper or an outer covering of metal foil or dispersed in Individual.

Category :- Pharmaceutical Aid

Dose → In accordance with the needs and response of the patient.

Storage → Wrap Individual Powder using an inner wax paper or an outer covering of metal foil or dispersed in individual well closed container.

The label on the container or on the label of package must state.

- (1) Direction for use
- (2) Any portion of the Salⁿ unused 24 hrs after preparation should be dissolved.
- (3) Amount contained in the unit-dose container.

Uses → used for electrolytes and dehydration.

Result → The electrolytes powder was prepared and submitted successfully.

Experiment - 8

Aim → To Prepare & Submit 50ml of Calamine Lotion.

Reference → Gaud R.S Gupta. "Practical Pharmaceutics".
B.S Publishers & Distributors. 1st edition, 2002
Page No - 105.

Requirement: Chemical - Calamine, zinc oxide, Bentonite
Sodium Citrate, Liquified Phenol, Glycerin, Rose water.

Apparatus - Beaker, mortar-pestle, Spatula, measuring
Cylinder etc.

Theory - Lotions are usually liquid or liquid suspensions
or semi-solid preparation containing 1 or more medicaments
intended to be applied to the uniform skin without
friction.

Calamine is a basic zinc carbonate suitably coloured with
ferrous oxide. it is used as mild-astringent. Bentonite
is a colloid hydrated aluminium silicate & acts
as a suspending agent. zinc oxide act as sedative
& protective of skin. Phenol to used as anti septic
& preservatives. Glycerin has smoothing effect.
Rose water is used as vehicle & flavouring agent.

Formula

S.No	Ingredients	Qty given (100ml)	Qty taken (50ml)
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 ml	0.25 ml
5.	Liquefied Phenol	0.5 ml	0.25 ml
6.	Glycerin	5 ml	2.5 ml
7.	Rose water	q.s 100ml	q.s 50ml

CALAMINE LOTION (50ml)

INGREDIENTS

1. Calamine - 7.5 gm
2. Zinc oxide - 2.5 gm
3. Bentonite - 1.5 gm
4. Sodium Citrate - 0.25 ml
5. Liquefied Phenol - 0.25 ml
6. Glycerin - 2.5 ml
- ROSE WATER - q.s 50ml

BATCH No 02

MFG DATE 12-12-2021

EXP DATE 13-11-2022

Prepared BY - MOHD. HUZAFIFA

STORAGE PRESERVE in A WELL - Closed Containers.

CATEGORY - Protective

USES - Protective

Procedure →

1. Prepare Sodium Citrate Solⁿ in 70 ml Rose water.
2. Triturate Calamine, zinc oxide & bentonite with Citrate Solⁿ.
3. Add Liquefied Phenol & mix
4. Add Glycerin & sufficient rose water to produce Sml.

Category → Protective

Storage → Preserve in a well-closed Containers.

Uses → Protective

Result → The Calamine lotion was prepared & Submitted successfully.

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Experiment - 09.

Aim → To prepare and Submit 20gm of Cold-Cream.

References → Grand R. S Gupta "Practical Pharmaceutics"
C.B.S Publishers & Distributors 1st edition 2002

Requirement :- Chemical

White bees wax - 15 gm

Liquid Paraffin 45 ml

mythyl paraben

Perfume

Borax

Apparatus

Beaker

Glass rod

Thermometer

Water bath

Theory → Creams may be defined as the Concentration emulsion
Comes under oil in water (o/w) or water in oil
(w/o) Cold Cream is water in oil type emulsion.

Procedure → Required amount of Beeswax and liquid paraffin
were taken in a beaker and heated on a water
bath up to 70°C to obtain a molten mass (Phase A or
oily phase)

2. in Another beaker take borax and water heated up to 70°C
(Phase B or Aqueous)

3. mix both the solution by adding was Phase into another
Phase with continuous stirring till a Cream like
consistency.

* Add the Preservative Perfume as q.s.

Formula

Ingredients	Qty taken 50 ml
white beeswax	15gm
Liquid Paraffin	45ml
Methyl Paraben	0.1
Perfume	q.s 0.1
Borax	1 gm

COLD-CREAM (20 gm)

INGREDIENTS

White beeswax - 15gm
 Liquid Paraffin - 45ml
 Methyl Paraben - 0.1
 Perfume - q.s (0.1)
 Borax - 1gm

BATCH No - 02

MFG Date - 26-2-021

EXP Date - 25-11-022

Prepared by - MOHD. HUSNAIFA

STORE - Store in a cool and dry place in airtight container.

Category - Emulsifying Agent

USES - Emulsifying Agent, Protective

Procedure:-

1. ~~Prepara~~ Sodium Citrate Solⁿ in form of water

Category → Emulsifying agent

Storage → Storage in a cool and dry in air tight container.

Uses → emulsifying agent, protective

Result → Cold Cream was prepared and submit successfully

Experiment No-10.

Aim-

To Prepare and Submit Some of Camphor Water.

Reference → Gupta G.D Sharma Shailish, Sharma, Neelam
"Practical manual of Pharmaceutics - 1" Nirali
Prakashan and edition, 2017.

Requirement → Chemical - Camphor, ethanal, purified water.

Apparatus → Dropper, measuring cylinder, weighing balance.
Beaker, Glass rod.

Theory - Aromatic waters are clear, saturated aqueous
Solution of Volatile oils or Volatile Substances.

Taste And colours of aromatic waters are similar to the
drug or volatile substance which are incorporated
in them.

→ Camphor is a ketone, obtained from - Cinnamomum
Camphora. it is colourless or white crystals or
crystalline masses. 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 & dissolve
it in ethanal.

2. Add this Alcoholic Solution drop-wise in Purified water
with shaking.

3. Shake well until all the Camphor is dissolved.

4. if necessary, filter the Solution & Store in a Cool
Container.

Formula:-

S. NO	Ingredients	Qty. Given (100ml)	Qty taken (50ml)
1	Camphor	0.10 gm	0.05 gm
2	Ethanol 90%	0.20 ml	0.10 ml
3	Purified water	q.s. 100ml	q.s. 50ml

CAMPBOR WATER (50ml)

INGREDIENTS	BATCH NO
CAMPBOR - 0.05 gm	02
Ethanol (90%) - 0.10 mL	MFG DATE 19-10-2021
Purified water q.s 50 mL	EXP. DATE 18-09-2021
	Prepared by - MONA HOZE AIFA
STORE IN A WELL CLOSED CONTAINER	
CATEGORY - Pharmaceutical Aid	
DOSE - 15-30 mL	
USES - Pharmaceutical Aid, Vehicle & used as Carminative	

Good

Category - Pharmaceutical Aid.

Dose - 15-30 ml

Storage - Store in a well closed Container.

Uses - Pharmaceutical Aid. vehicle & used as Carminative to relieve gripping pain.

Results - The Comphar water was prepared and Submitted Successfully.

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Formula -

S.no	Ingredients	Qty taken
1.	Wool Fat	0.50 gm
2.	Cetostearyl Alcohol	0.50 gm
3.	Hard Paraffin	0.50 gm
4.	White Soft Paraffin	8.50 gm

SIMPLE OINTMENT

INGREDIENTS

1. Wool Fat - 0.50 gm
2. Cetostearyl Alcohol - 0.50 gm
3. Hard Paraffin - 0.50 gm
4. White Soft Paraffin - 8.50 gm

MFG Date - 29-12-2021

EXP - Date 28-12-2022

Batch No - 02

Prepared by - MOHD. HOSNAIFA

Storage - Preserve in a well closed container. Protect from light.

Category - Pharmaceutical AID.

USES - Pharmaceutical AID. SKIN PROTECTION

Experiment-11

Aim - To prepare and Submit Simple Ointment.

References - Gaud R.S, Gupta G.D "Pharmaceutics Practical"
CBS Publishers & Distributors 1st Edition, 2002
Page No - 118

Requirement : Chemicals - Wool Fat, Cetostearyl alcohol, hard Paraffin, white Soft Paraffin
Apparatus - Beaker, Glass rod, Electronic balance etc.

Theory - Ointments are Semi-Solid preparation for application to the skin or mucous membranes. They are often anhydrous & contain the medicament either dissolved or dispersed in the vehicle. The solid substances which are dispersed, should be in the form of a micronized powder. Ointment are typically used as emollient powder. ~~Ointment~~ Protective & Vehicles to Incorporate medicaments.

Procedure →

1. mix wool fat, Cetostearyl alcohol, hard Paraffin & white Soft Paraffin in a container.
2. Heat the mixture gently with stirring until homogeneous
3. Stir continually until cold.

Category - Pharmaceutical Aid.

Storage - Preserve in a ~~well~~ Closed Container, Protect from light.

Uses - Pharmaceutical Aid.

Result → The Simple Ointment was prepared And Submitted Successfully.

Experiment - 12

Aim - To prepare & Submit 50 ml of Aqueous Iodine Solution

Synonyms $\rightarrow$ Lugol's Solution.

Reference $\rightarrow$ Gaud R. S Gupta G. D "Practical Pharmaceutics"

CBS Publisher & Distributors 1st Edition, 2002

Page No - 188

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 which is dispersed as small ions or molecules in the Solvents.

Procedure -

1. Measure the required amount of Ingredients
2. Dissolve Potassium iodide & iodine in 10ml of purified water
3. Add Sufficient amount of Purified water to produce 50ml Solution.

Formula-

S.no	Ingredients	Qty given (100ml)	Qty taken (s)
1.	Iodine	5gm	2.5 gm
2.	Potassium Iodide	10gm	5 gm
3.	Purified water	q.s 100ml	q.s 50ml

AQUEOUS

IODINE SOLUTION

Ingredients

1. Iodine - 2.5gm
2. Potassium Iodide 5gm
3. Purified water q.s 50ml

BATCH No-02

MFG DATE - 27-12-2021

EXP DATE - 28-12-22

Prepared by - MOHD. HUSNAIN

STORAGE - Preserve Aqueous iodine Solution in well closed container

CATEGORY - SOURCE of Iodine

DOSE - 0.3 to 4ml

USES - Source of Iodine

Category - Source of Iodine

Dose - 0.3 to 1ml

Storage - Preserve Aqueous iodine Solution in a well closed container. it should be resistant to Iodine

Uses - Source of Iodine.

Result - The aqueous iodine solution was prepared & submitted successfully.

Experiment → 13

Aim → To prepare and Submit Soap Liniment.

Reference → Gupta G.D, Sharma Shailesh, Sharma Neelam
"Practical Pharmaceutics, Nirali Prakashan.
First edition 2017, Page - No - 141

Requirements → Chemicals - Soft Soap, Camphor, Lemon grass oil, Purified water, Alcohol (90%)
Apparatus - Measuring Cylinder, Beaker, Spatula
Glass Rod.

Theory → Liniment are liquid or semi-solid preparations meant for external application to the skin. Liniment are usually applied to the skin with rubbing of the skin. They contain substances possessing analgesic, Rubefacient, Stimulating properties.

Procedure -

- (1) Dissolve the weighed quantity of Soft Soap, Camphor and lemon grass oil in 60 ml of Alcohol.
- (2) Add purified water and remaining amount of Alcohol to make up the volume and mix.
- (3) Keep aside for a week and then filter to remove the undissolved substance.

Category → mild local irritant.

Storage → Preserve in a well-closed container.

uses → mild local irritant.

Result → The Soft liniment was prepared and
Submit Successfully.

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Experiment - 14

Aim - To Prepare And Submit Piperazine Citrate Elixir.

Reference -> Gaud Rs & Gupta G.D "Pharmaceuticals Practical"
CBS Publishers and Distributors Pvt. Ltd.,
2018, Page No-58.

Requirements -> Apparatus -> Mortar And Pestle
Glass wares -> Glass Beaker, measuring Cylinder
And Percolator.

Chemicals -> Piperazine citrate, Chloroform, glycerine, orange-oil, Simple Syrup and distilled water.

Theory -> These are aromatic liquid preparations which form a convenient mean of administering potent or nauseous medicaments in a palatable form and in small dose volumes. The solvent frequently contains a high proportion of Alcohol and/or Syrup with or without glycerin.

Procedure ->

1. Dissolve Piperazine citrate in required amount of the purified water.
2. Add gradually orange oil, glycerine, syrup And Chloroform spirit And mix.
3. Add sufficient distilled water to produce to required amount of formulation.

Formula →

S.no	Ingredients	Official Formula	Working Formula
1	Piperazine Citrate	18g	
2	Chloroform Spirit	0.5ml	
3	Glycerin	10.0ml	
4	Orange oil	0.025 ml	
5	Simple Syrup	50.0ml	
6	Distilled water q.s	160ml	

Piperazine Citrate Elixir

Ingredients 1 Piperazine Citrate 2 Chloroform Spirit 3 Glycerin 4 Orange oil 5 Simple Syrup 6 Distilled water	BATCH No - 02 MFG DATE - EXP. DATE - Prepared by - Mohd. Huzefa
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STORAGE → Bussive in well closed container

CATEGORY — Expectant

DOSE — 4-30 ml, According to age of Patient.

USES — EXPACTORANT

CATEGORY $\Rightarrow$ Expectarant..

Dose $\Rightarrow$ 4-30ml, According to the age of the Patient.

STORAGE $\Rightarrow$ Preserve in well-closed container, protected from light.

USES $\Rightarrow$ Expectarant.

RESULT $\Rightarrow$ Piperazine Citrate Elixier was prepared and Submitted.

Experiment No-15

Aim → To Prepare and Submit Castor oil Emulsion.

Reference → Paul S, Mazumder A, Mazumder R,
"Advanced Pharmaceutical Formulation" 1st edition
2014, Bizla Publications Pvt. Ltd. Delhi Pg-182.

Requirements ⇒ Equipments → weighing Balance

Apparatus → Mortar & pestle, measuring cylinder (25ml)

Chemicals ⇒ Castor oil, zinc oxide, white beeswax, Cetylstearyl Alcohol, Arachis oil.

Theory → Emulsion is a biphasic system consisting of two immiscible liquids one of which the dispersed phase is finely subdivided and uniformly dispersed as droplet throughout the continuous phase. Since such a system is thermodynamically unstable a suitable emulsifying agent is required to stabilize the system.

Procedure → Melt white beeswax, Cetylstearyl Alcohol oil.

2. Separately triturate the zinc oxide with a portion of the castor oil until smooth.

3. Add the mixture in melted base and stir the temperature is about 40°C .

Formula →

S. no	Ingredients	official formula	working formula
1	Zinc oxide	0.75g	
2	Castor oil	5g	
3	White beeswax	1 gm	
4	Cetastearyl alcohol	0.20g	
5	Arachis oil	3.05g	

CASTER OIL Emulsion

INGREDIENTS

ZINC OXIDE

CASTOR OIL

White beeswax

Alcohol

Arachis oil

BATCH No - 02

MFG DATE -

EXP DATE -

Prepared by - Mohd. HUZAFI FA

STORAGE → Preserve in well closed container

CATEGORY - Astringent, Protective & Anti-septic

USES → Astringent, Protective and Anti-septic

CATEGORY $\Rightarrow$ Astringent, Protective and Antiseptic

STORAGE $\Rightarrow$ Preserve in a well-closed container,
Protected from light.

USES $\Rightarrow$ Astringent Protective and Antiseptic.

RESULTS $\Rightarrow$ Castor oil Emulsion was prepared, packed
& labeled.

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Experiment No - 16

Aim → To Prepare And Submit Cod Liver oil Emulsion.

Reference ⇒ Gaur R S & Gupta G D. "Practical Pharmaceutics"
CBS Publisher And Distributors Pvt, Ltd
2018, Page No - 120

Requirements → Apparatus → Mortar and Pestle
Glass wares → Glass Beaker, measuring cylinder
and Percolator.

Chemicals → Cod liver oil, Gum Acacia distilled water.

Theory ⇒ Emulsion is a biphasic system consisting of two immiscible liquids one of the which, the dispersed phase is finely subdivided And uniformly disperse and droplet throughout the continuous phase, Since such a system is thermodynamically unstable, a suitable emulsifying agent is required to stabilize the system. This emulsion is prepared by wet gum method (fixed oil)

Procedure → (1) Weigh Gum Acacia and add water in mortar And triturate it until a mucilage is formed then Add Cod liver oil drop by drop while triturating till Primary emulsion is formed.

2 Add sufficient amount of Purified water to Primary emulsion with constant Trituration, transfer it to the measuring cylinder and adjust it to the required volume by

Formula →

S.No	Ingredients	Quantity
1.	Cod liver oil	6ml
2.	Gum Acacia	1.5gm
3.	Purified water	30ml

COD LIVER OIL Emulsion

Ingredients -

COD LIVER OIL
Gum ACACIA
Purified water

BATCH No - 02

MFG DATE -

EXP DATE -

Prepared BY - MOH. HUSEFA

STORAGE → Preserve in well closed container

CATEGORY → DIETARY SUPPLEMENT, PROPHYLATIC

USES → DIETARY SUPPLEMENT, Prophylatic

Adding water.

Transfer the emulsion to bottle, cork And label and dispense.

CATEGORY $\Rightarrow$ Dietary supplement, Prophylactic.

STORAGE $\Rightarrow$ Preserve in a well-closed container, protected from light.

DIRECTION $\Rightarrow$ " SHAKE WELL BEFORE USE "

USES $\Rightarrow$ Dietary Supplement, Prophylactic and Curative in rickets, osteomalacia in defective Calcification

RESULT $\rightarrow$ Cod Liver oil was prepared and Submitted.

Experiment No-17

Aim → To Prepare And Submit 30ml olive oil emulsion.

Reference → Gaud R S & Gupta G.D, "Practical Pharmaceutics"
CBS Publishers and Distributors Pvt Ltd. 2018,
Page No- 121

Requirements → Apparatus → Mortar And Pestle

Glass wares → Glass Beaker, measuring Cylinder
And Percolator.

Chemicals → olive oil, Gum Acacia, distilled water.

Theory → Emulsion is a biphasic system consisting of two immiscible liquids of which, the dispersed phase is finely subdivided and uniformly dispersed as droplet throughout the continuous phase. Since such a system is thermodynamically unstable, a suitable emulsifying agent is required to stabilize the system.

This is prepared by Dry Gum method. This is also called as 4:2:1 method

4 parts (volumes) of oil. 2 parts of (water) And 1 part of (Gum) used in the preparation of Emulsion.

Formula →

S.No	Ingredients	Quantity
1.	olive oil	6ml
2.	Gum Acacia	1.5gm
3.	Purified water	30 ml

OLIVE OIL EMULSION

INGREDIENTS →

OLIVE OIL
GUM ACACIA
PURIFIED WATER

MPH DATE →

BATCH No → 02

EXP DATE →

P. 04 → Mond. Hozeifa

CATEGORY → Counter Irritant

STORAGE → Preserve in well-closed container

USES → Counter irritant

Procedure -

- (1) Measure the oil in a dry measure.
- (2) Powder Gum Acacia in a dry mortar. Add oil And mix thoroughly.
- (3) Water is added all at once and triturate unidirectionally vigorously and Continuous until clicking Sound is Heard.
- (4) Transfer the emulsion to bottle, cork, and label and dispense.

CATEGORY → Counter irritant.

STORAGE → Preserve in a well-closed Container, protected from light.

DIRECTION → "SHAKE WELL BEFORE USE"

USES → Counter irritant.

RESULT → 30ml olive oil was Prepared and Submitted.

Experiment No- 18.

Aim → To Prepare and Submit 20ml of Magnesium Hydroxide mixture (milk of magnesia IP)

Reference → Lachman L, Lieberman H.A, Kanig J.L,
Theory And Practice of Industrial Pharmacy, 3rd edition
Varigheze Publishing House, Bombay 1987 Page - 495.

Requirements → Chemicals → magnesium oxide, Sodium hydroxide
Light magnesium oxide.

Equipments → Weighing Balance

Apparatus → mortar & pestle, measuring cylinder

Theory → Suspensions are heterogeneous systems consisting of two phases. The continuous or external phase is generally a liquid or semi-solid and a dispersed or internal phase is made up of particulate matter that is insoluble, but dispersed throughout the continuous phase.

Procedure → (1) Dissolve magnesium hydroxide in small quantity of purified water. add light magnesium oxide, mix to form a smooth cream.

(2) Pour this suspension in two solution of magnesium sulphate in purified water.

(3) Then Volume was made up to 20ml with purified water.

Formula →

S.No	Ingredients	Official Formula	Working Formula
1	Magnesium Sulphate	100gm	
2	Sodium hydroxide	15gm	
3	Light magnesium "	52.5gm	
4	Chloroform	2.5ml	
5	Peppermint oil	0.5ml	
6	Purified water	1000 ml	

MAG. HYDROXIDE mixture

Ingredients mag. Sulphate Sodium hydroxide Light mag Chloroform Peppermint oil Purified water	BATCH N° - 02 MFG-DATE - EXP DATE - Prepared by - Mohd. Huzefa
--	---

STORAGE → It should be stored Air Tight Container

CATEGORY → Laxative & Antacid

DOSE → As directed BY Physician

CATEGORY → Laxative (8-16ml) and Antacid (1-4ml)

DOSE → As directed by Physician.

THERAPEUTIC USE → it is used as laxative and Antacid.

DIRECTION → "SHAKE WELL BEFORE USE"

STORAGE → it should be stored in air tight container, Cool And Dry Place.

RESULT → 20ml of milk of magnesia I.P was prepared, packed & labeled.

Experiment No - 19,

Aim → To Prepare And Submit 10 gm of Cetrinide Cream.

Reference → Crowd R.S & Gupta G.D "Practical Pharmaceutics"
CBS Publishers and Distributors Pvt Ltd.
2018, Page No - 28.

Requirements → Precipitated Sulphur, Simple ointment

Apparatus → mortar & pestle

Glass wares → Glass Beaker, measuring Cylinder
And Percolator.

Chemicals → Cetrinide, Cetostearyl alcohol,
liquid Paraffin, Purified water etc.

Theory → Cetrinide consist of A mixture of dodecyl-,
tetradecyl-, And hexadecyl-, trimethylammonium
bromides. it is a Creamy white. voluminous, free flowing
powder. it is used as a bactericide and Astringent

Procedure → (1) Dissolve the Cetostearyl alcohol in the liquid
Paraffin with the aid of gentle heat (A).

(2) At the same temperature in another beaker dissolve Cetrinide
in Purified water (B)

(3) Add warm oily phase (A) into Aqueous phase (B) with
Stir until Cold.

Formula →

S.No	Ingredients	offical formula	Working formula
1	Cetrimide	0.5g	
2	Cetostearyl alcohol	5.0g	
3	Liquid Paraffin	50.0g	
4	Purified water q.s	100g	

CETRAMIDE CREAM

INGREDIENTS →

CETRAMIDE -

Alcohol

Liquid Paraffin

Purified water

BATCH No - 02

MFG DATE -

EXP DATE -

Prepared by - MOHD. HUSEAIFA

STORAGE → Preserve in well closed container

CATEGORY - Pharmaceutical Aid

USES - BACTERICIDE

TEGORY → PHARMACEUTICAL Aid And Bactericide.

TORAGE → Preserve in A well closed Container.

SES → Pharmaceutical Aid And Bactericide.

ESULT → 10gm Ceteimide Cream was Prepared And Submitted.

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Experiment No-20

Aim → To Prepare and Submit 10gm of Sodium Alginate gel.

Reference → Rm. MEHTA "PHARMACEUTICS-II"
Vallab Prakashan, 2016 Page No-188.

Requirements → Precipitated Sulphur, Simple ointment

Apparatus → Mortar And Pestle

Glass wears → Glass Beaker, measuring cylinder And Percolator.

Chemicals → Sodium alginate, methyl hydroxybenzoate.
Calcium Chloride. and purified water etc.

Theory → Sodium alginate gel is used as lubricants
(1.2 - 2%) and dermatological vehicles (5-10%)

The viscosity of Sodium alginate gel can be increased by adding trace of Soluble Calcium Salt. Sodium alginate has an advantage over tragacanth because it is available in several grades of standardized viscosity.

Procedure →

1. Wet the Sodium alginate with glycerin in a glass mortar. Dissolve methylhydroxy benzoate and Calcium Chloride in about $\frac{3}{4}$ th of the purified water with the Aid of heat.
- (2) Cool tho about 60°C and stir it well.
- (3) Add Sodium Alginate glycerine mixture to it in small quantity and stir it vigorously.

Formula →

S.No	Ingredients	official formula	working formula
1	Sodium alginate	70g	
2	Glycerin	7.0g	
3	methyl hydroxybenzate	0.2g	
4	Calcium gluconate	0.05g	
5	Purified water (boiled)	100g	

SODIUM ALGINATE GEL

INGREDIENTS →

SODIUM ALGINATE
GLYCERIN
Methyl Hydroxybenzate
Calcium gluconate
Purified water

BATCH No → 02

MFG DATE →

EXP DATE →

Prepared BY → MOHD. HUSEIN
AIFA.

STORAGE → Preserve in a well closed container

CATEGORY → Dermatological Agent And Lubricants

USES → Dermatological Agent And Lubricants

4) Pack in a well-closed, air tight, wide mouth jar.
label And dispense.

CATEGORY → Dermatological Agent and Lubricants.

STORAGE → Preserve in a well closed Container.

USES → Dermatological Agent and Lubricants.

RESULTS → 10gm Sodium Alginate gel was prepared And
Submitted.

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Teacher's Signature

Experiment No-21

Aim → To Prepare And Submit 20gm of Turpentine Liniment.

Reference → Croud R.S & Gupta G.P "Practical Pharmaceutics"
CBS Publishers And Distributors Pvt. Ltd 2018.
Page No-97.

Requirements → Precipitated Sulphur, Simple ointment.

Apparatus → Mortar And Pestle

Glass wares → Glass Beaker, measuring Cylinder and Percolator.

Chemicals → Turpentine oil, Soft Soap, Camphor and Purified water.

Theory → Turpentine oil is the volatile oil distilled from the oleo-resin obtained from *Pinus palustris* miller and also obtained from other species of *Pinus*. it is Colourless limpid liquid with characteristic odor. Pungent taste And Somewhat bitter.

Procedure →

- (1) mix the Soft Soap with small amount of purified water (10ml)
- (2) make Solution of Camphor in Fresh rectified turpentine oil.
- (3) Gradually add Camphor Solution to the Soap mixture with Trituration untill a thick Creamy emulsion is formed.

Formulary

S. No	Ingredients	official formula	warning for
1	Soft Soap	9.0g	
2	Camphor	5.0g	
3	Turpentine oil	65.0g	
4	Purified water, q.s	100 ml	

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1. Add Sufficient Amount of Purified water to make up the volume And mix.

CATEGORY → Counter irritant.

STORAGE → Preserve in a well closed container and protect from light and store in cold place.

USES → Counter irritant and suberyficient.

RESULT → 2gm Turpentine liniments was prepared and Submitted.

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Experiment No-22

Aim → To formulate the Aspirin Tablet by wet Granulation Techniques.

Reference → Paul Das Swarnali, Mazumder Avijit & Mazumder Rupen.
"Advanced Pharmaceutical Formulation" Birla Publication.

First Edition, Page No-231 and 42-47.

Requirements → Apparatus → Weighing Balance, mortar And Pestle, Roche, Escibalator, Tablet Punching Machine, Dissolution Apparatus and Sieve.
Glass wares → Glass Beaker, measuring Cylinder.

Chemicals → Mannitol, Starch, Pcm / Aspirin, magnesium stearate, Lactose.

Theory → Tablet is a Solid dosage forms containing a medicament or mixture of medicament and excipients. Compressed or moulded into solid cylindrical shape having either flat or Convex Surface.

Granulation method. → The Characteristics of a Tablet that make it a popular dosage form e.g Compactness Physical, stability, rapid production capability. Chemical stability and efficiency are in general primarily by the qualities the granulation form which it is made. wet granulation forms the granules by binding the particles together with an Adhesive instead of by compaction.

Teacher's Signature.....

Formula → for each tablet

S.No	Ingredients	Quantity	Function
1	Mannitol	330	Dilvents
2	Starch	12	Binder
3	Aspirin	100	Drug or API
4	mag. stearate	8	Lubricant
5	Lactose	150	Fillers
6	water.	AS	wetting agents

ASPIRIN TABLET BY WETT GRANULATION

MANNITOL

STARCH

ASPIRIN

mag. stearate

Lactose

water

BATCH NO → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. MUZEAIFA

CATEGORY →

USES →

The Solubility of the binder has a good influence on the choice of methods. Since the solution should be fluid enough to disperse readily in the mass. Liquid bridges are developed between particles. And the tensile strength of these bonds increases as the amount of the liquid added is increased. A drying process is required in all wet granulations to remove the solvent and to reduce the moisture content.

Procedure → (1) Accurately weight all the ingredients and mix with the help of mortar and pestle.

(2) Granulate the mannitol with starch and water to form a mass.

(3) Then this mass should pass through sieve no 10 to form the granules.

(4) Dry the granules at 60°C

(5) Now separately mix drug and mix all the granules.

RESULT → The Aspirin tablet was formulated by wet Granulation Technique.

Experiment No-23

Aim → To Prepare And Submit indomethacin Capsules.

Reference → Paul Das Swarnali, Mazimder Axijit & Mazimder Rupa
"Advanced Pharmaceutical Formulation" Binda Publication.

First edition. Page No- 231.

Requirements → Apparatus → Capsule Filling Machine And Weighing Balance.

Glass wearers → Glass Beaker, measuring Cylinder.

Chemicals → Mannitol, Starch, indomethacin, magnesium Stearate, Lactase, Colloidal Silicon dioxide.

Theory → Capsule is a shell or a container prepared from gelatin containing one or more medicinal and/or inert substance. The gelatin Capsule shell may be soft or hard depending on their formulation. Capsules are intended to be swallowed whole by the patient. Capsules are of two types soft gelatin Capsules and Hard gelatin Capsules.

Procedure → Accurately weight all the ingredients and mix with the help of mortar and pestle.

- (2) mix them in ascending order of their weight. Granulate the mannitol with starch and water to form a mass.
- (3) Place the powders on glazed tile or glazed paper in a layer about $\frac{1}{3}$ of the height of the Capsules in their thickness.
- (4) Remove the cap from the shell. Repeatedly press the inverted base of the Capsule on the powder until Capsule on the powder

Formula →

S. NO	Ingredients	Quantity (g)	Function.
1	Mannitol	330	Dilvents
2	starch	12	Binder
3	indomethacin	100	Drug or API
4	mag. stearate	8	lubricants
5	lactose	150	fillers
6	colloidal silicon	20	glidants
7	water	q.s	wetting agents

INDOMETHASIN TABLET

INGREDIENT	
MANNITOL	BATCH No → 02
STARCH	MFG DATE →
INDOMETHACIN	EXP DATE →
mag. stearate	P. BY → MOHD. MUZEFAIA
lactose	
colloidal silicon	
water	

STORAGE → it should be stored in Air Light container

USES → it is a non steroid anti-inflammatory drug.

until it is filled with the desired weight of the powder.

(6) Fill 233 mg in Size 0 Capsules.

STORAGE → Capsules should be stored in air light resistant container and kept in cool place to prevent the volatilization.

USES → it is a non steroidal anti-inflammatory drug (NSAID). it used to treat moderate to severe osteoarthritis rheumatoid etc.

RESULT → Indomethacin was prepared and submitted.

UNITED SECULAR SOCIETY

Experiment No- 24

Aim → To Prepare Tetracycline hydrochloride Capsules.

Reference → Paul Das Swarnali, Mazimder Arijit & Mazimder Rupa
"Advanced Pharmaceutical formulation" Bisla Publication
first edition, Page No- 231

Requirements → Apparatus → Capsule filling machine And weighing Balance
Glass wears → Glass Beakers, measuring Cylinder.
Chemicals → Mannitol, Starch, Tetracycline, magnesium stearate. Lactose Colloidal Silicon dioxide.

Theory → Capsule is a shell or a container prepared from gelatin containing one or more medicinal or inert substance. The gelatin capsule shell may be soft or hard depending on their formulation. Capsules are intended to be swallowed whole by the patient. Capsules are two types: Soft gelatin Capsules And Hard gelatin Capsules.

Procedure → Accurately weight all the ingredients and mix with the help of mortar and pestle.
mixed them in ascending order of their weight. Granulate the mannitol with starch and water to form a mass.
Place the powders on sized sieve or glazed paper in a layer about $\frac{1}{3}$ of the height of the capsule in their thickness.
Remove the cap from the shell. Repeatedly press the inverted base of the capsule on the powder until capsules on the powder until is filled with the desired weight of the

Formula →

S.No	Ingredients	Quantity (g)	Function
1	mannitol	330	Dilvents
2	Starch	12	Binder
3	Tetracycline	100	Drug or API
4	mag. stearate	8	Lubricants
5	Lactose	150	Fillers
6	Colloidal Silicon	20	glidants
7	Water	Q.S	wetting agents

TETRACYCLINE HYDROCHLORIDE CAPSULES

MANNITOL → STARCH → TETRACYCLINE → mag. stearate → Lactose → Colloidal Silicon → Water →	BATCH No → 02 MFG DATE → EXP DATE → P.B.Y. → MOHD. HUZEIFA
---	--

STORAGE → it should be stored in an tight container

USE → it used to treat infection.

Powder.

(5) Replace the Cap over the base. Check the weight by keeping an empty shell in other pan of the balance as a tare.

(6) Fill 233mg in Size 0 Capsules.

(7) A most suitable method is to roll the filled Capsules in dry towel, very lightly sprinkled with paraffin. Transfer the Capsules in Capsule vials. Label and dispenses.

STORAGE → Capsules should be stored in air tight, light resistant container and kept in cool place to prevent the volatilization.

USES → it is used to treat infection caused by bacteria including pneumonia and other respiratory tract infection.

Result → Tetracycline Capsules was prepared and Submitted.

Experiment No-25

Aim → To prepare Submit Paracetamol Tablet by direct Compression method.

Reference → Paul Das Swarnali, Mazimden Avijit & Mazimden Rupam
"Advanced Pharmaceutical Formulation", Birla Publication.
First edition, Page no- 231 and 40-47.

Requirements → Apparatus → weighing balance, mortar and pestle
Roche Eribalator, Tablet Punching Machine, Dissolution
Apparatus and Sieve.

Glass wears → Glass beaker, measuring cylinder.

Chemicals → Mannitol, Starch, PEG, magnesium Stearate.
Lactose.

Theory → Tablet is a solid dosage form containing a
medicament or mixture of medicament and
excipients compressed or molded into solid cylindrical
shape having either flat or convex surfaces.

Direct Compression method → This method is used when a
group of ingredients can be
blended and placed in a tablet press to make a tablet
without any of the ingredients having to be changed.

Formula →

S.No	Ingredients	Quantity	function.
1	mannitol	330	Dilvents
2	starch	12	Binder
3	Paracetamol	100	Drug or API
4	mag. stearate	8	Lubricant
5	lactose	150	fillers
6.	Aerosil	2	Glidant

PARACETAMOL TABLET BY DIRECT COMPRESSION METHOD

INGREDIENT MANNITOL STARCH PARACETAMOL mag. stearate LACTOSE Aerosil	BATCH NO → 02 MFG DATE → EXP DATE → P.BY → MOHD. MUZEAlFA
CATEGORY →	
USES →	

Procedure →

1. Accurately weight the entire ingredients.
2. Mix all Components, Pass through Sieve.
3. Add Aerosil and Magnesium stearate and Press with low-Compression force.
4. Compress 215 mg using 8mm biplanar punches.

RESULTS → Paracetamol Tablet was formulated by direct Compression method.

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Formula →

S.No	Chemicals	Quantity (g)	Quantity (T)	Function
1	Salicylic Acid	10	0.3 gm	Anti-microbial
2	Boric Acid	15 gm	0.5 gm	Anti-infective
3	Talc	300 gm	10 gm	Diluent

SALICYLIC ACID DUSTING POWDER

Ingredients →

SALICYLIC ACID - 10

BORIC ACID - 15 gm

TALC - 300 gm

BATCH No → 02

MFG DATE →

EXP DATE →

P.BY → MOHD MUZE AIFA

Storage - Preserve in well closed container

Uses - Germicidal, local Anti-Angerative

Experiment No - 26

Aim → To Prepare And Submit 10gm of Salicylic Acid dusting powder.

Reference → Paul D.S., Mazumder. A, Mazumder R, Advanced - Pharmaceutical Formulation : Bisda Publication Delhi, first edition.
Page No -

Requirements → Chemical - Salicylic Acid, Boric Acid, Talc
Glass wear - Mortar - pestle G.2, Chemical - Spatula
And Sieve no - 120

Theory → Dusting powder are used for external application the skin of Anti-septic, Anti-Pruritic, astringent Anti-perspirant, absorbent And lubricant purpose.

Procedure → weight accurately All the chemicals separately

- (2) Mix Salicylic Acid, Boric Acid, Talc in a mortar - pestle.
- (3) Pass the mixture through Sieve No - 120 to remove gritty particles.
- (4) Mix the powder Again
- (5) Pack the powder in suitable container to protect from moisture.

Pharmaceutical CATEGORY → Germicidal, local, anti-infective

Results → 10gm of Salicylic acid dusting powder was prepared And Submitted.

Teacher's Signature : _____

Experiment No-27

Aim → To Prepare and Submit 10gm of Citrate effervescent powder.

Reference → Paul D.S, Mazumder. A, Mazumder. R,
Advanced Pharmaceutical Formulation Birla Publication
First edition. Page No- 67.

Requirements → Chemicals — Alcohol, Sodium bicarbonate, Saccharin Sodium, Citric Acid, Tartaric Acid,

Glass ware — Mortar — Pestle G.2, Sieve No — 40 & 100, Chemical — Spatula.

Theory → Sweetened effervescent powder formulated as granules it is preferred over effervescent powder in order to decrease the rate of dissolution of the substance upon addition of water.

Procedure —

- (1) Weigh accurately all the chemicals separately.
- (2) Triturate Citrate powder, orange flavour, Sorbitol uniformly.
- (3) Granulate the powder mixture with a solution of Citral F68 and deionised water.
- (4) Pass the Blend through the Sieve No-40.
- (5) Dry for 30 minutes until the water gets evaporated at temperature not more than 110°C

Teacher's Signature : _____

Formula →

S.No	Chemicals	Quantity	Quantity (T)	Functions
1	Citrate Powder	5gm	1.25 mg	API
2	Orange Flavour	15ml	0.5 ml	Flavouring
3	Luteral-68	150g	5gm	Sweetener
4	Sorbitol	3gm	0.008	Surfactant
5	Deionized water	750ml (q.s)	25ml	Wetting Agent

CITRATE EFFERVESCENT POWDER

CITRATE POWDER → 1.25 mg
 ORANGE FLAVOUR → 0.5 ml
 LUTERAL-68 → 5gm
 SORBITOL → 0.008
 DEIONIZED WATER → 25ml

BATCH No → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. MUZE AIFA

STORAGE → Preserve in well closed container.

CATEGORY → Analgesic

- 1) Sieve again to obtain a fine flowing powder
- 2) Fill in Sachet.

Pharmaceutical Category - Analgesic

Result → 10 gm of Citrate effervescent powder was prepared
And Submitted.

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Teacher's Signature : _____

Formula ↓

S.No	Ingredients	Official Formula	Working Formula
1	Oleic Acid	85ml	
2	Turpentine oil	250ml	
3	Dilute ammonia	45 ml	
4	Ammonium Chloride	12.5g	
5	Purified water	625 ml	

White Liniment DPC

INGREDIENT

OLEIC ACID

TURPENTINE OIL

DILUTE Ammonia

Ammonium chloride

PURIFIED WATER

BATCH NO → 62

MFG DATE →

EXP DATE →

P.B.Y → Mohd. Husein A

STORAGE → rat use certain Plastic container

CATEGORY → Counter irritant

USES → Counter irritant

Experiment No-28

Aim → To prepare And Submit 20ml white Liniments BPC.

Reference → Gaud RS & Gupta G.D. "Practical Pharmaceutics"
CBS Publishers And Distributors Pvt. Ltd 2018, Page No-94

Requirements → Apparatus - Mortar & Pestle

Glass wares - Glass Beaker, measuring Cylinder And Percalator

Chemicals - oleic Acid, Turpentine oil, Ammonium Solution,
Ammonium Chloride.

Theory - Liniments are liquid for Cutaneous applications that are intended to be applied to the unbroken skin with friction.

Procedure - (1) mix the oleic Acid with the measure quantity of turpentine

(2) Mix dilute ammonia solution with 45ml of purified water.

(3) Add warm dilute ammonia solution to the oily solution and shake to form an emulsion.

(4) Dissolve ammonia chloride in remaining amount of purified water.

(5) Mix the solution in the emulsion. and shake it.

CATEGORY → Counter irritant

STORAGE → Certain plastic Containers are not suitable for white liniments, use narrow mouthed labeled glass.

USES → Counter irritant.

RESULT → 20ml white Liniments BPC was prepared & Submitted.

Teacher's Signature _____

Experiment - 29.

Aim → To Prepare and Submit 50ml Dextrose with Sodium Chloride injection LVP (Normal Saline)

Reference → Paul D.S., Mazumder A., Mazumder R.,
Advanced Pharmaceutical Formulation: Birla Publication

First edition - Page No - 305

Requirements → Apparatus - Mortar & Pestle

Glass wares - Glass Beakers, Measuring Cylinder And Percolator

Chemicals - Dextrose Anhydrous, Sodium Chloride, Activated Charcoal.

Theory - This is an official preparation given in USP. Dextrose And Sodium Chloride injection. USP is a sterile non-pyrogenic solution for fluid and electrolyte replenishment and caloric supply in single dose containers for intravenous administration. It contains no antimicrobial agents with pH 4.0 (3.2 to 6.5)

Procedure -

- (1) Use freshly prepared item 3 stored not more than 24 hours at 8°C. Add item 1 to item 3 at 6°C and mix 15 min.
- (2) Add item 2 And 3 and mix vigorously for 15 min.
- (3) Filter to mixture in step 2 throw a sterilized filter assembly Suitably for retaining Charcoal and to yield a clear solution

Teacher's Signature : _____

Formula →

S. No	Ingredients	official Formula	working formula
1	Dextrose Anhydrous	55g	
2	Sodium Chloride	9033 g	
3	Activated Charcoal	500mg	
4	water of injection	1L	

NORMAL SALINE

INGREDIENT →

Dextrose

SODIUM CHLORIDE

ACTIVATED CHARCOAL

WATER OF INJECTION

BATCH No → 02

MFG DATE →

EXP DATE →

PBY → MOHD. HUSEIN A

CATEGORY → FLUID AND ELECTROLYTE

4) Filter using at least a 0.45- μ m filter before final filtration with 0.22- μ m filter and fill into 50ml Type glass bottles.

5) Fill ~~solo~~ while maintaining solution at 45°C to 50°C and seal immediately by using butyl grey rubber stoppers. Rewashed and sterilized at 116°C for 30 min. Use triple aluminium seal and suitable plastic hangers.

6) Sterilize filled bottle by autoclaving at 121°C for 20 min.

7) Check pH of solution (4.0 - 4.3) before autoclaving pH is 5.5 to 6.0.

CATEGORY - Fluid and Electrolyte. Replenisher.

RESULT - 50ml Sodium Chloride injection LVP was prepared and submitted.

Experiment No- 30

Aim → To Prepare and Submit 20ml of Calcium Gluconate Injection.

Reference → Paul D.S, Mazumder A, Mazumder R, Advanced Pharmaceutical Formulation: Birla Publication First edition pages- 298-299

Requirements → Apparatus - Mortar & Pestle

Glass wares - Glass Beaker, measuring Cylinder & Petalator

Chemicals - Calcium Gluconate, Calcium - d - Saccharate $\cdot 4H_2O$

Theory → This formulation is present in USP. Calcium Gluconate injection is a sterile non-pyrogenic supersaturated solution of Calcium Gluconate in water of injection for intravenous use.

Calcium Gluconate is used to treat conditions arising from calcium deficiencies such as hypocalcaemia, hypocalcaemia related to hyperparathyroidism and hypercalcaemia due to rapid cell lysis.

Procedure -

1. Weigh 0.8g of water for injection.
2. Add Calcium Gluconate to the water for injection and stir until the solution clears.

Teacher's Signature : _____

Formula →

S. No	Ingredients	official formula	working formula
1	Calcium Gluconate	94g	
2	Calcium . $4H_2O$	5g	
3	WFI USP	Q.S to 1 L	
4	1N NaOH	Q.S	

CALCIUM GLUCONATE INJECTION

INGREDIENT

CALCIUM GLUCONATE

CALCIUM . $4H_2O$

WFI SUP

1N NaOH

BATCH No → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. MUZEAlFA

CATEGORY → Electrolyte Replenisher

- (3) Add Calcium Saccharate and mix to a clear solution.
- (4) Transfer to another tank; after 24 hours take into account the solution temperature and check pH and adjust to between 7.0 and 7.5; using 1N sodium hydroxide solution.
- (5) Allow the above solution to come to room temperature and bring to final volume with for injection. Do not reheat even if a few crystals come out of solution.
- (6) After cooling and pH adjustment filter the solution through a $0.45\text{ }\mu\text{m}$ prefilter and a $0.22\text{ }\mu\text{m}$ sterilized filter and fill the vials.
- (7) Heat the filled vials in autoclave at 105°C for 10 min.

CATEGORY $\rightarrow$ Electrolyte Replenisher

Dosage And Administration — The dose is dependent on the requirements of the individual patient. Intravenous Calcium Gluconate Injection. USP must be administered slowly.

USUAL DOSEAGE $\rightarrow$ Adult: 500mg - 2g (5 - 20ml)

Children: 200mg - 500mg (2 - 5 ml)

Infants: not more than 200mg (not more than 2 ml)

RESULT $\rightarrow$ 20ml Calcium Gluconate injection was prepared submitted.

Teacher's Signature: _____

Experiment → 31

Aim → To Prepare and Submit 20ml of Aqueous Inhalation.

Reference → "Grand R.S & Gupta G.D" Practical Pharmaceutics
CBS Publishers And distributors Pvt. Ltd, 2018
Page No- 285

Requirements - Apparatus - Mortar & pestle

Glass wares - Glass Beaker, measuring cylinder & Percolator

Chemicals - Eucalyptus oil, menthal, light magnesium carbonate and purified water.

Theory - The term inhalation is used commonly by the layman to present preparations intended to be vaporized with the aid of heat. usually steam. and inhaled inhalations are solutions of medicaments administered by the nasal or oral respiratory route for local or systemic effect.

Procedure -

1. Powder weighted amount of menthal in glass mortar & pestle.
2. Add eucalyptus oil And stir until the solid has dissolved.
2. Add light magnesium carbonate and mix well.
4. Transfer to a tared container.
3. Rinse the mortar with purified water and add the rinsings to be bottle in small amounts.
6. Shake vigorously after each addition.

Teacher's Signature :

Formula ↓

S.No	Ingredients	official formula	working formula
1	Eucalyptus oil	10ml	
2	menthol	3ml	
3	Light mag. Carbonate	6.5 ml	
4	Purified water.	100ml	

AQUEOUS INHALATION

INGREDIENTS

EUCALYPTUS OIL

Menthol

Light mag. Carbonate

Purified water

BATCH NO → 02

MFG DATE →

EXP DATE →

P.B.Y → MUNDHUZE A.H.A

STORAGE → Preserve in well closed container

CATEGORY → EXPETORANT, BACTERIASTATIC

CATEGORY - Expectant, bacteriostatic

STORAGE - Preserve in a well-closed container.

RESULT - 2ml Aqueous inhalation was prepared and Submitted.

UNITED SECULAR SOCIETY

Formula →

S.No	Ingredients	Official Formula 1000ml	Working formula 500ml
1	mag. Sulphate	16.5g	8.25g
2	mag. Carbonate	2.2g	1.1g
3	Peppermint water	9.5	9.5

MAGNESIUM SULPHATE

INGREDIENTS

mag. Sulphate

mag. Carbonate

Peppermint water

BATCH No → 02

MFG DATE →

EXP DATE →

P.B.V → MOHD. MUZFAIFA

STORAGE → Store in well closed container

CATEGORY → ANTA-CID

DOSE → 1 spoon to be taken twice a day

Experiment - 32

Aim → To prepare And dispense 50ml Magnesium Sulphate mixture.

Requirements → Chemicals - Mag. Sulphate, mag. Carbonate, Peppermint water.

Apparatus - Beaker, measuring cylinder, glass rod, mortar - Pestle, weighing Balance.

Theory → An antacid is a substance which neutralizes Stomach acidity, which is turn relieves heartburn, indigestion or Stomach upset, Antacids can be Classified as follow.

Procedure → Dissolve magnesium Sulphate and magnesium Carbonate in mortar. Add Peppermint make up to required volume. Transfer to a suitable water to Container. Label and dispense it

CATEGORY → Antacid

Dose → 1 tablespoonful to be taken twice a day.

STORAGE → Store in a well - closed Container.

RESULT → 50ml magnesium Sulphate mixture was prepared & submitted.

Teacher's Signature : _____

Formula ↓

S.No	Ingredients	official Formula 1000ml	Working Formula 500ml
1	Light Kaolin	200g	100g
2	mag. Carbonate	50g	25g
3	Sodium bicarbonate	50g	25g
4	Peppermint water	25 ml	12.5 ml
5	Chloroform water	500ml	15 ml
6	Purified water	q.s	q.s

KAOLIN MIXTURE

Light Kaolin
 mag. Carbonate
 Sodium bicarbonate
 Peppermint water
 Chloroform water
 Purified water

BATCH No → 02

MFG. DATE →

EXP. DATE →

P. BY → MOHD. HUSEIFA

STORAGE → Store in well closed container

CATEGORY → Antacid

DOSE → 1 tablespoonful

Experiment No- 32.

Aim → To prepare and dispense 50ml Kaolin mixture.

Reference → Narang Kaur Jasjeet, Singh Tnderbir.
"Pharmaceutics laboratory manual" Birla Publication
1st edition 2019. Page No- 33

Requirements → Apparatus - mortar-pestle, weighing balance
glass wares - Beaker, measuring cylinder glass rod.
Chemicals - Light kaolin, mag. carbonate, Sodium bicarbonate
Peppermint, Chloroform, Purified water.

Theory → An Antacid is a substance which neutralizes
Stomach acidity, which is turn relieve heartburn
indigestion or Stomach upset.

Procedure → Dissolve Kaolin, mag. carbonate, Sodium bicarbonate
in chloroform water. Transfer to a suitable container.
Label and dispense it.

CATEGORY → Antacid.

Dose → 1 tablespoonful to be taken twice a day.

Storage → Store in a well-closed container.

Result → 50ml Kaolin mixture was prepared And
Submitted.

Teacher's Signature : _____

Experiment No- 34

Aim → To prepare and dispense 30ml of Peppermint oil Emulsion.

Reference → Narang Kaur Jasjit, Singh Indarbir,

"Pharmaceuticals Laboratory manual"

Bisla Publication, 1st edition 2019. Page No- 50-51

Theory → ~~Peppermint oil is a~~

Requirements → Apparatus → measuring cylinder, Beaker, Glass Rod, weighing Balance.

Chemicals → Peppermint oil, Acacia gum, Purified water.

Theory → Peppermint oil is a volatile oil and is not miscible with water. To make it miscible, a third substance known as emulsifying agent in the ratio of 4:4:2 i.e oil water gum will be used for the preparation of primary emulsion. Gum acacia will be used as emulsifying agent because emulsions prepared with Gum acacia remain stable for sufficient long time.

A Carminative, also known as Carminativum (plural carminatives) is an herb or preparation intended to either prevent formation of gas in the gastrointestinal tract or facilitate the expulsion of said gas, thereby combatting flatulence.

Formula →

S.No	Ingredients	Working formula 30ml
1	Peppermint oil	8ml
2	Acacia gum	4 gm
3	Purified water	q.s

PEPPERMINT OIL

INGREDIENT

PEPPERMINT OIL

ACACIA GUM

PURIFIED WATER

BATCH No - 02

MFG DATE →

EXP DATE →

P. BY → MAND. MUZE AIFA

STORAGE → it is stored in well-closed Containers.

CATEGORY → Flavoring Agent Carminative.

DOSE → one tablespoonfull Twice A day

Procedure →

Dry Gum Method → measure the required quantity of oil with a clean and dry measuring cylinder and transfer it to this, Add the Calculated quantity of acacia and triturate rapidly so as to mix them. To this incorporate water required for primary emulsion and triturate rapidly without ceasing till a clicking sound is produced and the product becomes white or nearly white. At this stage, the emulsion is known as primary emulsion. Then add more of vehicle to produce to required volume.

STORAGE → it is stored in a well closed container.

CATEGORY → Flavouring Agent and Carminative

DOSE → one tablespoonful twice a day.

RESULT → 30ml of Peppermint oil Emulsion was prepared And Submitted.

Formula →

S.No	Ingredients	official formula 1000ml	Working formula 50
1	Ferrous Sulphate	18.75g	0.38
2	Sodium Chloride	9g	0.45g
3	Purified water	q.s	q.s

SODIUM CHLORIDE SOLUTION

FERROUS SULPHATE - 0.2g
SODIUM CHLORIDE - 0.45g
PURIFIED WATER - q.s

BATCH NO. 02

MICROBIAL

TESTED

PHY. & MATH. HUSEIN ARA

STORAGE → Store in a well closed container

CATEGORY → Electrolyte supplement

Experiment No - 35

Aim → To prepare and dispense 50ml Sodium chloride Solution.

Reference → Narang Kaur Jasjit, Singh Indarbir
"Pharmaceutics Laboratory manual"

Birda Publication, 1st edition 2019. Page No - 53-54

Requirements → Apparatus → Beaker, Glass rod, weighing Balance measuring cylinder.

Chemicals → Ferrous Sulphate, Sodium Chloride, Purified water

Theory → In medicine, electrolyte replacement is needed when a patient has prolonged vomiting or diarrhoea or as a response to strenuous athletic Activity. Commercial electrolyte Solutions are available, particularly for Sick Children (oral rehydration Solutions) and athletes (Sports Drink). Electrolyte monitoring is important in the treatment of anorexia and bulimia.

Procedure → Dissolve sodium chloride in sufficient amount of Purified water to produce 100ml and Filter.

STORAGE → Store in a well closed Container.

CATEGORY → Electrolyte replenisher.

RESULT → 50ml Sodium chloride Sol. was prepared & Submitted.

Teacher's Signature : _____

Formula →

S.No	Ingredients	official Formula 1000ml	working formula 50ml
1	Lemon	250g	12.5g
2	Alcohol (90 Percent)	q.s	q.s

LEMON TINCTURE

LEMON → 12.5g

ALCOHOL → q.s

BATCH No → 02

MFG DATE →

EXP DATE →

P.BY →

STORAGE → STORE IN DARK

CATEGORY → PHARMACEUTICAL AID

USES → USE TO TREAT SCURVY

Experiment No - 36.

Aim → To prepare and dispense 5ml Lemon Tincture.

Reference → Narang Kaur Jasjeet, Singh Indrabir.

"Pharmaceutics Laboratory manual"

Bisda Publication, 1st edition 2019. Page No - 75-76

Reference → Apparatus - Beaker, measuring cylinder, weighing balance, Glass rod,

Chemicals - Lemon, Alcohol (90 percent)

Theory → Pharmaceutical aid is a substance, drug or a dosage form that help in the formulation of other Pharmaceutical dosage forms.

- Procedure →
- Take fresh lemon and cut into thin slices.
 - Weigh the required quantity of thin slices and macerate it with whole quantity of alcohol in a covered vessel.
 - Allow to macerate for 7 days with occasional stirring.
 - Strain the liquid. Press the marc and mix the expressed liquid to the strained liquid.
 - Clarify the combined liquid by filtration.
 - Transfer to the suitable container.
 - Label and dispense it.

Teacher's Signature : _____

STORAGE → Store in a well closed container.

CATEGORY → Pharmaceutical Aid.

USES → Lemon is used to treat scurvy, a condition caused by not having enough Vitamin C. Lemon is also used for the common. Cold & Flu. H1N1 (Swine) Flu. ringing the ears. (tinnitus) meniere's disease & Kidney.

it is also used to aid digestion pain & swelling (inflammation) improve the function of Blood vessels. and increase urination to reduce fluid retention.

RESULT → 50ml Lemon Tincture was prepared & submitted.

Experiment No-37

Aim → To Prepare And Dispense Soln of Boric Acid for Lotion.

Reference → Naray Kumar Jasjeet, Singh Indarbir.

"Pharmaceutics Laboratory manual".

Bixla Publication, 1st edition 2019. Page No-85-86

Requirements → Apparatus - Beaker, Weighing Balance.

Glass wares - measuring cylinder, glass rod, etc.

Chemicals - Boric Acid, Alcohol, Purified water.

Theory → Boric Acid also called hydrogen borate, boric acid, orthoboric acid and acidum boricum, is a weak mono-basic Lewis acid of boron often used as an antiseptic, insecticide flame retardant, neutron absorber or precursor to other chemical compounds. It has the chemical formula H_3BO_3 (Sometimes written $B(OH)_3$) and exists in the form of colourless crystals or a white powder that dissolves in water. When occurring as a mineral, it is called sassolite.

Procedure → Dissolve the boric acid in about 20ml of purified water. add alcohol and incorporate more of purified water to produce the required volume. Pack label And dispense. Attach the secondary label "For external use only"

Formula →

S.No	Ingredients	official formula 1000 ml	working formula 500
1	Boric Acid	2g	1g
2	Alcohol (90%)	20ml	10ml
3	Purified water	q.s	q.s

BORIC ACID EAR LOTION

Boric Acid → 1g

Alcohol → 10ml

→ q.s

BATCH No → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. HUZAFIFA

STORAGE → Store in well closed container

DOSE → 3-4 drops

USES → Anti-Bacterial

① STORAGE → Stored in a well-closed Container.

Dose → 3-4 drops to be put into ear occasionally.

USES → it has feeble anti-bacterial and Anti-fungal properties.
A Solution in alcohol in alcohol and water as used for instillation into ear for antibacterial and antifungal action.

RESULT → 5ml of Boric Acid Ear lotion was prepared And Submitted.

Formula

S.No	Ingredients	official formula 1000 ml	Working formula 30 ml
1	Sodium bicarbonate	5g	0.15g
2	Purified water to	q.s	q.s

SODIUM BICARBONATE EYE LOTION

Ingredients

Sodium Bicarbonate - 0.15g

Purified water - q.s

BATCH No - 02

MFG DATE -

EXP DATE -

P.BY - M.H.D. H. L. Z. E. A. F. A.

STORAGE - In dark

CATEGORY - B

Experiment No- 38

Aim → To Prepare And dispense 30ml Sodium Bicarbonate eye lation

Reference → Nariang Kaur Jasjit, Singh Indarjit
"Pharmaceutics Laboratory manual"

Birla Publication, 1st edition 2019. Page No- 89-90

Requirements - Apparatus - Weighing Balance

Glass wares - Beaker, Glass rod, measuring cylinder,

Chemical - Sodium bicarbonate, purified water to.

Theory →

Labelling → The label states that any eye lation not used within 24 Hours of opening the container should be discarded. When Sodium Bicarbonate eye lation is prescribed or demanded no strength being stated a lation containing 2% w/v of Sodium bicarbonate shall be dispensed or supplied.

Procedure → Dissolve Sodium bicarbonate in water And make up to the required volume by adding more water.

STORAGE → It is stored in Cool Place.

CATEGORY → in the treatment of burning of eyes

RESULT → 30ml Sodium Bicarbonate eye lation was prepared & Submitted.

Formula →

S.No	Ingredients	official formula 1000 ml	working formula 50 ml
1	Potassium Permanganate	1mg	1mg
2	Purified water	q.s	q.s

Potassium PERMANGATE LOTION

POTASSIUM PERMANGATE - 1mg
PURIFIED WATER - q.s

BATCH No-02
MFG DATE →
EXP DATE →
P. BY →

STORAGE → Store in Cool Place

USE S → Anti-Septic

Experiment No- 39.

Aim → To prepare and dispense 50ml Potassium Permanganate Lotion.

Reference → Narsing Kaur Taseet, Singh Indrabir.

"Pharmaceutics laboratory manual"

Birla Prakashan. 1st edition. Pages No- 93-94

Requirements → Apparatus →

Glass wears →

Chemicals → Potassium Permanganate, Purified water.

Theory → An oxidant potassium permanganate can act as an antiseptic. For example, dilute solutions are used to treat Canker sores (ulcers), disinfectant for the hands and treatment for mild Bromphalynx, dermatitis and fungal infections of the hands or feet.

Procedure → Dissolve Potassium Permanganate and make up to 50ml with distilled water. Transfer in a suitable container. Label and dispense it.

STORAGE → Store in a well closed container.

USES → Anti-Septic

RESULT → ~~Antiseptic~~ 50ml Potassium Permanganate Lotion was prepared and Submitted.

Teacher's Signature : _____

Formula ↓

S.No	Ingredients	official formula 1000 ml	working formula 25 ml
1	Eucalyptus oil	0.5 ml	0.125 ml
2	Camphor	12.5 g	3.125 g
3	Ammonia	25 ml	6.25 ml
4	Alcohol	9.5	2.5

AMMONIATED CAMPHOR LINIMENT

EUCALYPTUS OIL - 0.125 ml
 CAMPHOR - 3.125 g
 AMMONIA - 6.25 ml
 ALCOHOL - 9.5

BATCH No →
 MFG DATE →
 EXP DATE →
 P. BY →

CATEGORY →

DOSE → STORE →

Experiment No- 40

Aim → To Prepare And dispense 25ml Ammoniated Camphor Liniment.

Reference → Narang Kaur Tarjeet, Singh, Indenbir
"Pharmaceutics Laboratory manual"

Bisla Publication, 1st edition, Page No- 100-101

Requirements → Apparatus → Weighing Balance etc.

Glass ware → measuring cylinder, Beaker, Glass rod etc.

Chemical → Eucalyptus oil, Camphor, Ammonia, Alcohol.

Theory → A Counterirritant is a substance which creates irritation or mild inflammation in one location with the goal of lessening discomfort and inflammation in another location. This strategy falls into the more general category of counterstimulation.

Procedure → measure required quantity of eucalyptus oil and camphor in alcohol. Add calculated ammonia solution and make up volume with alcohol. Transfer to a suitable container label and dispense it.

CATEGORY → Counter irritant

DOSE → Store in well closed container.

RESULT → 25ml Ammoniated Camphor Liniment was Prepared And Submitted.

Teacher's Signature : _____

Experiment No- 41

Aim $\rightarrow$ To Prepare And Dispense 40 ml of Coconut Shampoo.

Reference $\rightarrow$ Narang Ramesh Tejjeet, Singh Indrajit

"Pharmaceutics Laboratory manual"

Birla Publication, 1st edition - 2019, Page No - 103-104

Requirements $\rightarrow$ Apparatus - measuring cylinder, Glass rod, Beaker, weighing balance, mortar & pestle

Chemical $\rightarrow$ Potassium hydroxide, Coconut oil, Boric Acid, Purified water.

Theory $\rightarrow$ Coconut oil or Copra is an edible oil extracted from the Kernel or meat mature Coconuts harvested from the Coconut Palm (*Coco nufiera*) it has various application because of its high Saturated fat content. It is slow to oxidize and that resistant to rancidification, lasting up to Six month at 24°C (75°F) without spoiling.

Procedure $\rightarrow$ Heat the Coconut oil at about 80°C .

- Dissolve Potassium hydroxide in some water.
- The hot water solution is added to hot oil with vigorous shaking until a complete solution is produced.
- Heat a small mixture with hot water to produce complete sol.
- Add sufficient water to produce required volume set aside for 24 hours and filter.
- Add Boric acid to maintain pH.

Teacher's Signature : _____

Formula ↓

S.No	Ingredients	official formula 1000ml	working formula 40 ml
1	Potassium hydroxide	60 mg	24 mg
2	Coconut oil	90 ml	36 ml
3	Boric Acid	100 mg	4 mg
4	Purified water	q.s	q.s

COCONUT SHAMPOO

Ingredients

Potassium HYDROXIDE - 24 mg

COCONUT OIL - 36 ml

BORIC ACID - 4 mg

PURIFIED WATER - q.s

BATCH No → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. MUZEFAIFA

STORAGE → It is stored in well closed container

CATEGORY → anti-dandruff

Transfer for a Suitable Container.
Label and dispense it.

STORAGE → it is stored in well closed container.

CATEGORY → Antidandruff.

RESULT → 40ml of Coconut Shampoo is Prepared And Submitted.

UNITED SECULAR SOCIETY

Teacher's Signature : _____

Experiment No-42.

Aim → To Prepare & dispense 40ml of Egg Shampoo

Reference → Narang Kaur Jasjit, Singh Jinderbir.
"Pharmaceutics Laboratory manual" Birla Publication.
First edition, 2019 Page No- 105-106.

Requirements → Apparatus → Mortar & Pestle, measuring Cylinder
Glass rod, Beakers, weighing Balance etc.

Chemicals → fatty alcohol Sulphate, lauryl isopropylamide
ethelene glycol monoesterate, Egg powder, Perfume, Preservative.

Theory → Egg Yolks And whole egg store significant amount of
protein and Choline, and are widely used in Cookery.
Due to their Protein Content. The United State department of Agriculture
Categorizes egg as meats within the food guide pyramid. Despite
the nutritional value of egg, there are some potential health
issues arising from egg quality storage.

Procedure →

- Add egg powder with small quantity of water to make a paste
- Dilute it with some amount of detergent.
- mix other ingredients with water separately.

Teacher's Signature : _____

Formula →

S.No	Ingredients	Official Formula 1000 ml	Working Formula 40 ml
1	Fatty Alcohol Sulphate	27.50 gm	11.8 gm
2	Lauryl isopropylamide	1.0 gm	0.4 gm
3	Ethylene glycol monostearate	3.0 gm	1.2 gm
4	Egg powder	0.25 gm	0.1 gm
5	Perfume	2.5	2.5
6	Preservative	2.5	2.5

EGG SHAMPOO

Ingredients

ALCOHOL SULPHATE - 11 gm
 Lauryl isopropylamide - 0.4 gm
 Ethylene glycol monostearate - 1.2 gm
 Egg powder - 0.1 gm
 Perfume - 2.5
 Preservative - 2.5

BATCH No - J 02

MFG DATE →

EXP DATE →

P. BY → MOHD. MUZE AIFA

STORAGE → It is stored in well closed container

CATEGORY → Cleaning of HAIR

- Add the first mixture to it with Continuous stirring.
- Then lastly add Perfume.
- Transfer to a Suitable Container.
- Label And dispense it.

STORAGE → it is stored in well closed - Container.

CATEGORY → Conditioning and as well as cleaning of Hairs.

RESULT → 40ml of Egg Shampoo was prepared And submit.

Formula

S.No	Ingredients	official Formula 1000 ml	Working Formula 40 ml
1	Boric Acid	53	0.05 g
2	Zinc Stearate	108	0.1 g
3	Talc	848	0.84 g
4	Perfume	2.5	2.5

BABY POWDER

Boric Acid → 0.05 g

zinc stearate → 0.1 g

TALC → 0.84 g

PERFUME → 2.5

BATCH No → 02

MFG DATE →

EXP DATE →

P. BY → MOHD. HUSEIFA

STORAGE → Store in well-closed container.

CATEGORY → Anti-Bacterial

Experiment No - 43

Aim → To Prepare And dispense 10g Baby Powder.

Reference → Narsing Kaur Jasjeet, Singh Jinderbir.

"Pharmaceutics Laboratory manual" Birla Publication

1st edition, 2019, Page No. - 109-110

Requirements → Apparatus - Beaker, mortar & pestle, Glass rod, measuring cylinder, weighing Balance.

Chemical → Boric Acid, Zinc Stearate, Talc, Perfume.

Theory → Typically, a Powder can be compacted or loosened into a vastly larger range of bulk densities than can a coarse granular material when deposited by sprinkling a powder may be very light and fluffy. when vibrated or compressed it may become very dense and even lose its ability to flow. The bulk density of Coarse Sand, on the other hand does not vary over an appreciable range. The clumping behaviour of a powder arises because of the.

Procedure → Mix the solid ingredients and pass through sieve no. 12. Add Perfume, label and dispense it.

STORAGE → Store in a well-closed container.

CATEGORY → Anti-Bacterial

RESULT → 10g Baby Powder was Prepared & Submitted.

Teacher's Signature : _____

Experiment No- 44

Aim → To Prepare and dispense 5g Talcum Powder.

Reference → Narang Ravi Tejpal, Singh Indrabir.

"Pharmaceutics Laboratory manual" Birla Publication
1st edition - 2019, Page No - 113-114

Requirements → Apparatus → Beaker, weighing Balance, measuring Cylinder, Glass rod,

Chemicals → Talcum powder, Kaolin, magnesium Carbonate, zinc etc.

Theory → A powder is a dry, bulk solid composed of a large number of very fine particles that may flow freely when shaken or tilted. Powders are a special subclass of granular materials although the terms and granular are sometimes used to distinguish separate classes. of material in particular, powders refer to those granular material that have the finer grain sizes. and that therefore have a greater tendency to form clump when flowing.

Procedure → mix the required quantity of a portion of magnesium Carbonate with perfume and set aside.

- Mix all the ingredients and add perfume
- Pack in Suitable Container.

Teacher's Signature : _____

Formula →

S.No	Ingredients	official formula 1000ml	working formula 5g
1	Talcum Powder	40g	0.2g
2	Kaolin	25g	0.125g
3	mag. Carbonate	10g	0.05g
4	Zinc stearate	15g	0.075g
5	Zinc oxide	10g	0.05g
6	Perfume	2.5	2.5

TALCUM POWDER

TALCUM POWDER	- 0.2g	BATCH No- 02
KAOLIN	- 0.125g	MFG DATE →
MAG. Carbonate	- 0.05g	EXP DATE →
Zinc stearate	- 0.075g	P.BY → MOH. D. HULFAIFA
Zinc oxide	- 0.05g	
PERFUME	- 2.5	

STORAGE → STORE IN A COOL PLACE

(CATEGORY) → ANTI-SEPTIC ASTRINGENT

STORAGE → Store in a cool place.

CATEGORY → Anti-septic and astringent.

RESULT → 5g Talcum powder was prepared And Submitted.

UNITED SECULAR SOCIETY

Teacher's Signature : _____

Experiment No - 45

Aim → To Prepare and dispense some Zinc Sulphate Eye Drops.

Reference → Narang Kumar Jasjeet, Singh Indarbir.
"Pharmaceuticals Laboratory manual" Bisda Publication
1st edition 2019, Page No - 132 - 133

Requirements → Apparatus - Beaker, Glass rod, Chemical Spatula, weighing Balance, mortar - pestle, measuring cylinder.

Chemical → Sodium Chloride, Zinc Sulphate, Chlorocresol
Purified water.

Theory → Eye drops are Saline - Containing drops administered by ocular route. Depending on the condition being treated. they may contain steroids, antihistamines, Sympathomimetics, beta receptor blockers, Parasympathomimetics, non-steroidal anti-inflammatory drugs (NSAIDs), antibiotics, antifungal or topical anesthetics, Eye drops sometimes do not have medications in them and are only lubricating and tear replacing solutions.

Procedure →

Dissolve Sodium Chloride, Zinc Sulphate, Chlorocresol in water and make up to the required volume by adding more purified water. Sterilize in autoclave.

Formula ↴

S.No	Ingredients	OFFICIAL Formula 1000 ml	Working Formula 1000 ml 500 ml
1	Sodium Chloride	8.55g	0.43 g
2	Zinc Sulphate	2.5g	0.125 g
3	Chlorocresol	5g	0.25 g
4	Purified water	q.s	q.s

SULPHATE EYE DROPS

SODIUM CHLORIDE - 0.43g

ZINC SULPHATE - 0.125g

CHLOROCRESOL - 0.25g

PURIFIED WATER - q.s

BATCH No - 02

MFG DATE ↴

EXP DATE ↴

P.B.Y - MOHD MUJEER

STORAGE ↴ STORE IN A COOL PLACE.

CATEGORY ↴ ANTI-SEPTIC

STORAGE → Stored in a Cool Place.

CATEGORY → Antiseptic and astringent.

RESULT → 50ml Zinc Sulphate Eye Drops was Prepared & Submitted.

UNITED SECULAR SOCIETY

Formula →

S.No	Ingredients	OFFICIAL FORMULA 1000ml	Working Formula 50ml
1	HYDROGEN PEROXIDE	6ml	0.3ml
2	PURIFIED WATER	Q.S	Q.S

HYDROGEN PEROXIDE EAR

Ingredients	BATCH No - 02
HYDROGEN PEROXIDE → 0.3ml	MFG DATE →
PURIFIED WATER → Q.S	EXP DATE →
	P. BY → MOHD. HUZefa

STORAGE → STORED IN WELL CLOSED CONTAINER

CATEGORY → ANTI - SEPTIC

Experiment No- 46

Aim → To Prepare And dispense 50ml Hydrogen Peroxide Ear Drops.

Reference → Nursing Kaur Sujeev, Singh Indarbir.
"Pharmaceutical Laboratory manual" Bisla Publication
1st edition 2019, Page No- 135-136

Requirements → Apparatus -- mortar & pestle, weighing Balance
measuring cylinder,

Chemical → Hydrogen Peroxide, Purified water.

Theory → Ear drops are a form of medicine used to treat an inflamed ear infections, especially infections of the outer ear and ear canal (otitis externa.)

Procedure → Hydrogen Peroxide ear drops are an aqueous solution containing about 6% w/v of hydrogen peroxide solution with water gives the hydrogen peroxide eardrops.

STORAGE → Stored in a well closed container.

CATEGORY → Anti-septic and deodorant.

RESULT → 50ml Hydrogen Peroxide Ear Drops was Prepared And Submit.

Experiment No- 47

Aim → To Prepare & dispense 10g of Vanishing Cream.

Reference → Kharang Kumar Jasjeet, Singh Jnderbir.

"Pharmaceutics Laboratory manual". Birla Publication
1st edition 2019 - Page No-

Requirements → Apparatus - Beaker, measuring cylinder, mortar-pestle, Glass rod, weighing Balance - etc.

Chemicals → Stearic Acid, potassium Carbonate, Benzyl Carbital, Perfume.

Theory → Despite the fact that vanishing Creams were advertised as beauty Creams, it is probable that their chief use was as a base for face powders, loose of the time did not adhere well to the skin, particularly if it had been cleansed with Soap and water. Adhesion of the powder was improved if the skin was coated with a Surface cream to give the powder something to which it could stick. A Cold Cream could have been used but it had a greasy feel so was unsuitable unless the skin was very low in oil. Vanishing Cream, being water-based, had no oily feel and were generally a better solution.

Formula →

S.No	Ingredients	official formula 1000 g	working formula
1	Stearic Acid	180g	1.8g
2	Potassium Carbonate	3g	0.03g
3	Borax	2g	0.02g
4	Carbital	50g	0.5g
5	Perfume	2.5	2.5

VANISHING CREAM

Ingredients	BATCH No-102
STEARIC ACID - 1.8g	MFG DATE →
POTASSIUM CARBONATE - 0.03g	EXP DATE →
BORAX - 0.02g	P.BV → MOHD. HUZefa
CARBITAL - 0.5g	
PERFUME - 2.5	

STORAGE → STORE IN WELL - CLOSED CONTAINER

CATEGORY → COSMETIC

Procedure →

Melt Stearic acid in water bath.

Dissolved potassium carbonate in water and add hexax to it and mix.

Heat the Solution and pour into melted Stearic acid and Cool.

Add Perfume. Transfer to a suitable Container.

Label and dispense it.

STORAGE → Stored in a well-closed Container.

CATEGORY → Cosmetic.

RESULT → log of Vanishing Cream was prepared And Submitted.

Experiment No- 48

Aim → ~~Saml~~ To prepare and dispense ~~Saml~~ Zinc Gelatin Paste.

Reference → Narsing Kaur Jasjeet, Singh Indenbir.
"Pharmaceutics Laboratory manual" Birla Publication.
1st edition 2019, Page No- 145, 146.

Requirements → Apparatus — Beaker, mortar — Pestle, Glass rod
weighing Balance, etc.

Chemical → Zinc oxide, Gelatin, Glycerine.

Theory → Pastes typically consist of a suspension of granular material in a background fluid. The individual grains are jammed together like sand on a beach, forming a disordered, glassy or amorphous structure, and giving pastes their solid-like character. It is this "jamming-together" that gives pastes some of their most unusual properties; this causes paste to demonstrate properties of fragile matter.

Procedure → measure required quantity of Zinc oxide, gelatin, glycerine make-up the required volume. Transfer to a suitable container. Label and dispense it.

Formula →

S.No	Ingredients	Official Formula 1000g	Working Formula 50ml
1	Zinc oxide	150g	7.5g
2	Gelatin	150g	7.5g
3	Glycerine	277 ml	13.85 ml

ZINC GELATIN

INGREDIENTS

ZINC OXIDE - 7.5g
GELATIN - 7.5g
GLYCERIN - 13.85 ml

BATCH NO-02

MFG DATE →

EXP DATE →

P. BY → MOHD. HUSEIFA

STORAGE → STORE IN WELL CLOSED CONTAINER

CATEGORY → ANTI-SEPTIC

CATEGORY → Anti-Septic

Dose → Store in a well-closed container.

RESULT → 50ml Zinc Gelatin Paste was Prepared And Submitted.

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Teacher's Signature : _____

Formula →

S.No	Ingredients	official formula 20g	Primary formula 20g
1	Liquid Paraffin	2g	2g
2	White Soft Paraffin	5g	5g
3	Paraffin wax	3g	3g

EMULSIFYING OINTMENT

Ingredients

LIQUID PARAFFIN - 2g

WHITE SOFT PARAFFIN - 5g

PARAFFIN WAX - 3g

MFG DATE

EXP DATE

BATCH NO - 02

Prepared By -

STORAGE → STORE IN WELL CLOSED CONTAINER

CATEGORY → PHARMACEUTICAL AIDS

Experiment No - 49

Aim → To prepare and dispense 20g of Emulsifying ointment.

Reference → Navrang Kaur Jasjeet, Singh Jinderbir
"Pharmaceutics laboratory manual" Birla Publication
1st edition 2019, Page No -

Requirement → Apparatus - measuring cylinder, Beaker, Glass-rod, weighing Balance.

Chemicals - Liquid paraffin, white soft paraffin, paraffin wax.

Theory → Pharmaceutical Aid is a drug or dosage form which help in the formulation of water dosage forms.

Procedure - Triturate required quantity of paraffin wax, liquid paraffin and white soft paraffin. make up to required volume. Transfer to a suitable container, label and dispense it.

CATEGORY - Pharmaceutical Aid.

Dose → Store in a well-closed container.

RESULT - 20g of Emulsifying ointment was prepared & submitted.

Experiment No- 50

Aim → To Prepare & dispense 25g of Calamine ointment.

Reference → Narang Ravi Tejpal, Singh Indenbir.
"Pharmaceutics laboratory manual" Birla Publication
1st edition 2019, Page No- 150-151

Requirement- Apparatus- mortar & pestle, Beaker, Glass rod, weighing Balance.

Chemicals- Calamine, white soft paraffin.

Theory - An astringent (occasional alternative: adstringent) substance is a chemical compound that tend to "shrink or constrict body tissues. The word "astringent" derives from Latin adstringere meaning "to bind fast". Two common examples are Calamine lotion and witch hazel. Another example is yerba mansa, a native plant of California.

Procedure → Triturate required quantity of Calamine and white soft paraffin, make up to required volume. Transfer to a suitable container, label and dispense it.

Formula 2r

S.No	Ingredients	official formula 8.5g	Primary formula 25g
1	Calamine	1.5g	4.4g
2	White Soft Paraffin	8.5g	25.5g

CALAMINE OINTMENT

Ingredients

CALAMINE - 4.4g
White Soft PARAFFIN - 25.5g

BATCH No - 02

MFG DATE -

EXP DATE →

P. BY → MUHAMMAD HUSEFA

STORAGE → STORE IN WELL CLOSED CONTAINER

CATEGORY → ASTRINGENT & PROTECTIVE

CATEGORY → Astringent and Protective.

DOSE → Store in a well closed container.

RESULT → 25g of Calamine ointment.

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