

Index Sr. No.: 5
(Evaluated Model Answer Sheet)



Dhule Charitable Society's
ANNASAHAB RAMESH AJMERA COLLEGE OF PHARMACY
NAGAON (DHULE) - 424 006.

Theory Sessional Examination 2018-2019

Name of Student :- Patil Kamini Ramkrushna

Roll No. :- 64

Course :- B.Pharm/M.Pharm

Class :- F.Y./S.Y./T.Y./Final

Department :-

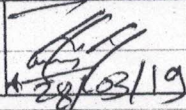
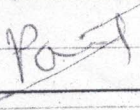
Sem. :-

Subject :- Pharmacognosy

Sub. Code :-

Date :- 28/3/19

Max. Marks :- 20

Q.No.	1	2	3	4	5	6	Total	Supervisor's Sign. with Date	Examiner's Sign.
Marks	4	2	5				13 1/2	 28/3/19	

Start Writing From Here

Q.1.

a) Significance of Ash value :-

- ① To determine physical properties of compound
- ② Ash value used to test for various test of compound.
- ③ Ash value is used to determine the purity of compound.
- ④ Ash value are used to determine chemical constituents present in a compound.

b) Herbal patent :-

Herbal patent are define as the right by government to inventor to make, sell formulation of herbal products. Herbal patent are ~~Right~~ ^{invented} rights by intergovernment to selling or formulation



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Standardization & is are define as the the process by which the determine the quality or purity of substance by various physiochemical methods like morphological

compound or substance by various ^{chemical} tests and ~~mac~~ microscopical characters.

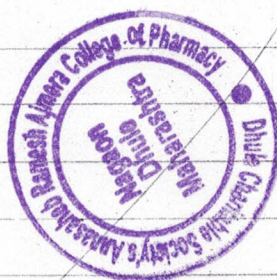
f) B.S. of Eucalyptus oil :-

It is obtained from the dried leaves of plant known as *glyceriza glabra*.

g) Herbal medicines :-

Herbal medicines are crude & medicines are obtained from plants in a crude ~~to~~ treat form & it is treat and protect from ~~the~~ the diseases.

Herbal medicines are used to treat & various disorder. Herbal medicines are obtained from plants.



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Q. 2

b) Role of HPTLC in quantitative estimation of active principle from herbals -
HPTLC have a main role in quantitation estimation.

HPTLC are the chromatographic method which are used to check or the purity of compound.

When a new compound are synthesized ^{to know} the purity of this compound are important.

The chromatographic method like HPLC, HPTLC, TLC are used.

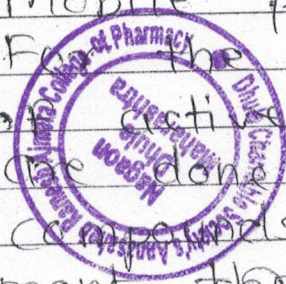
But HPTLC are modified to give quantitative estimation of active principle of herbals.

HPTLC are used to determine purity or quality of Herbal medicines.

HPTLC are the sophisticated method of HPLC.

HPTLC consist of two phase mobile phase & stationary phase.

For the quantitative estimation of active principle of herbals are done by spot spotting of compounds. In a HPTLC instrument the, if impurity are present in a Herbal medicines then it shows. therefore HPTLC are used to determine



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c) Trade account of Liquorice :-

Synonym - Yasti

B.S :- Liquorice are obtained from dried roots of ~~stems~~ and stolons of *Glycyrrhiza glyabra*.
Family Leguminaceae.

Macroscopic characters :-

- ① it consist thick Ribres.
- ② its roots consist parenchyma cells.

Chemical constituents -

- ① it consist Glycyrrizin due to this sweet taste are occure.
- ② it consist ~~Alk alk~~ glycosides, ketones aldehydes.
- ③ it consist of active constituent Glycyrric acid.

Uses :-

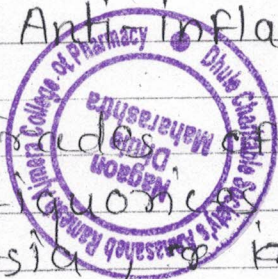
- ① Liquorice are used & as expectorants.
- ② Anti-rheumatids & anti to treat
- ③ to treat peptic ulcers.
- ④ Anti-inflammatory & analgesic agents.

2. Trade of Liquorice :-

Liquorice are cultivated in central Asia & in Australia etc.

It is exports from turkey.

more amount of liquorice are imports about 18,327 tones it is mainly exported from iraq,



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Liquorice are exports or imports in more amount because it is used more amount to produce Herbal medicines.



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Q.3.

b) Patenting of Herbal medicines :-

Patenting of Herbal medicines are important for the formulation and selling of inventor.

Patent are the rights are govern by intergovernment to inventor to selling making and formulation of a production when any person formulate a new product then before in come in market patent of to gain patent of this product are important.

By Buy the herbal medicines another person's can't use your formula to make new product. because patent are the proof of this Herbal medicines.

So patenting of herbal medicine

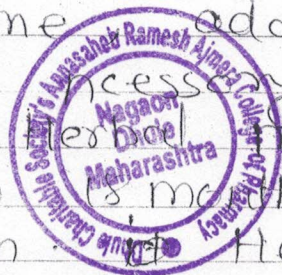
Process of Patent of Herbal medicine :-

(1) ^{Filling} Application of patent :-

Name, address, the medicines' information all this information are need.

Patent a for the patent, Filling of name address ^{Principal} the information are necessary.

The Herbal medicines can't marked upto 18 months after Filling the application form. Herbal medicines are close information are closed for 18 months. For the patent Filling of application form are necessary.



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② examination of application :-

After the filling of application form then it is examine. check the all paper of Herbal medicines. examine the product. Herbal products. Pat & For patenting of herbal medicines to check all the test and examine the product are necessary. Many test are doing on Herbal product for patents.

③ Advertising :-

After the examination Advertising are important. because of Advertising peoples are attracted to the Herbal products. therefore the advertise this product.

Then all after all process the patenting the Herbal medicines.

Herbal medicines are product which are obtained from plants.

Patenting Herbal medicines have given the rights for formulation and selling of Herbal medicine.



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c) Analyze heavy metals in herbals :-

Analyse of heavy metals in herbals are important. Because of most of herbals medicines consist of heavy metals. ~~Heat~~ heavy metals are used to determine density of cerium, scandium which is present in a herbals.

Heavy metals are important in cosmetic. It is mostly used in a preparation of cosmetic.

mercury, scandium, Ag are used as heavy metals.

But it is used in limited concentration.

Heavy metals are have main in skin and hairs. it gives a good properties for skin therefore it is used in herbals products.

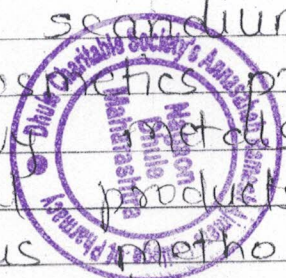
Mercury gives good effect in damaged skin.

heavy metals have a cosmetic used. it is used to make many cosmetic products such as lipstick, creams, toilet powder etc.

Analyse of heavy metals are used to determine the density of mercury, lead, scandium which is present in a cosmetics product.

Heavy metals are found in herbals products. It is analyse by various method.

because it is important to check of or analyse of heavy metal in herbals medicines.



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Theory Sessional Examination 2019-2020

Class	S.Y. B. Pharm	Name of Student	Nikam Urvashi Panjabrao
SEM	IV th sem	Roll No. (In Figure)	54
Division	B	Roll No. (In Words)	Fifty four
Subject	Physical Pharmaceutics-II Sub Code :- BP403T		

Internal Assessment	Signature of Supervisor	Max. Marks (B.Pharm)	Max. Marks (M.Pharm)	Marks Obtained	Signature
First Sessional Exam. Date 24/02/20	<i>[Signature]</i> 24/2/20	30	30	23	<i>[Signature]</i> 27/02/20 Examiner Sign.
Second Sessional Exam. Date		30	30		Examiner Sign.
Average Marks		30	30		<i>[Signature]</i> Student Sign.
Marks Out of		15	15		
Continous Mode Assessment		10	10		
Total Marks (In Figure)		25	25		
Total Marks (In Words)		Twenty Five	Twenty Five		

(Continous Mode Assessment)

NOTE : TEACHER SHOULD CONDUCT ANY THREE ACTIVITIES LISTED IN THE TABLE

Sr. No.	Activities (Pls. Tick Any Three)	Date of Activity	Max.Marks (B.Pharm)	Max.Marks (M.Pharm)	Marks Obtained
1	Quiz		05	NA	
2	Assignment		05		
3	Open Book Test		05		
4	Field Work		05		
5	Group Discussion		05		
6	Seminar		05		
	Total Marks		15		
7	Marks Out of		03		
8	Attendance		04	08	
9	Student Teacher Interaction		03	02	
	Grand Total		10	10	



[Signature]
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Q.1

- 1) strokes law
2
- 2) Polyphasic
2
- 3) Anticancer
2
- 4) Both of these
2
- 5) All of these
✓



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2) Micromeritics

Micromeritics is study of science of small particle size.

Methods of determine particle size

- 1) optical microscopy
- 2) sieving method
- 3) sedimentation method
- 4) conductivity method

Sieving method

In sieving method 50 to 1500 μm particle size is obtained. It is diameter is same that of aperture size of sieve.

The diameter of sieve is calculated that d_{sieve} . The sieves are arranged in descending order.

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Method :-

Sieving method is used for determination of particle sizes. Sieves are arranged in descending order. Sieves are arranged like a nest at the bottom and coarsest size at the top.

The sample powder is taken (50 gm) of sample. The sample is put in the first sieve and it is moved mechanically by sieve



machine move about 20 minutes.

After moving sieve shaker machine some particles of powder are retained in all sieves.

Accordingly sieves weigh the powder particle in all sieves and then find out geometrical mean and arithmetic mean. Bottom of the sieves collecting vessel is present for collecting particles.

In sieves wire mesh is made up of clothes and surrounding material is made up by brass.

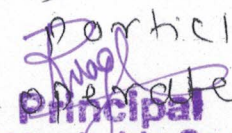
Arithmetic mean is find by the standard ^{value} size of aperture size.

e.g. 32 is size of one sieve and 45 is another size of another

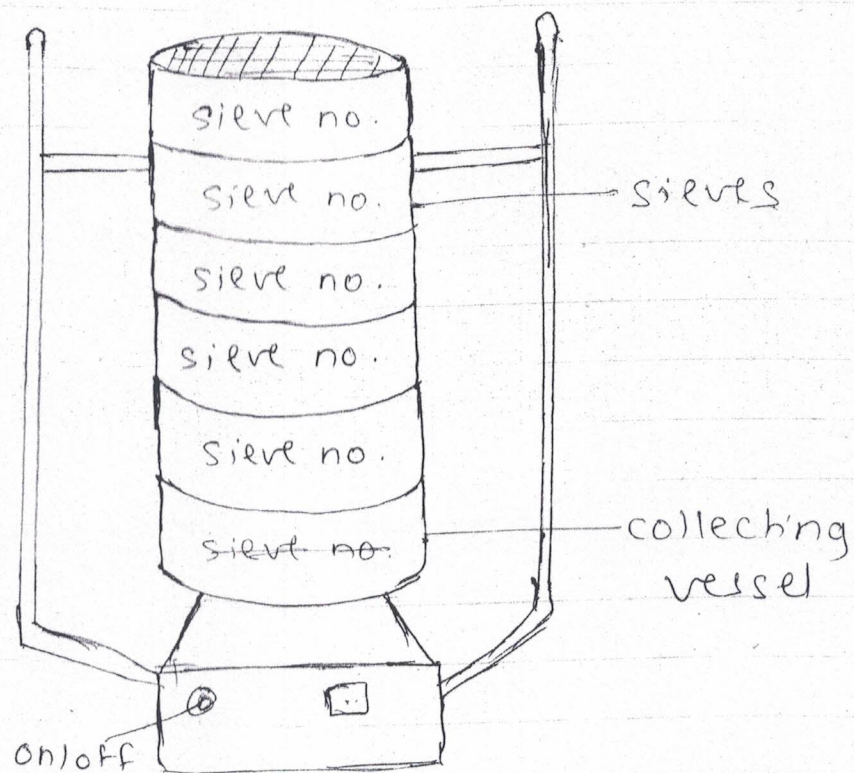
sieve.

standard value of 32 aperture size is different and standard value of 45 aperture size is different. Two different size of two sieves ~~are~~ and adding their standard value it is find arithmetic mean.

The sieve shaker machine is easy method for determination of particle size. It is easy to ~~operate~~ and it is not time


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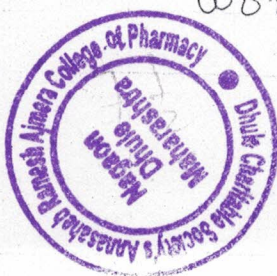


Advantages :-

- 1) It is inexpensive.
- 2) It is easy to operate.
- 3) It is not time consuming.

Disadvantages :-

- 1) It's lower limit is only 50 μm .
- 2) If powder is wet then the aperture is get clogged and particles are passing through the sieve.
- 3) Sometime sieve shaker is not properly worked for particle distribution.



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Q. 3

1) colloids

colloidal dispersion is a polyphasic system which has one dimension of dispersed phase and it is measured in one nm to one μm .

Application of colloids

1) Basement products

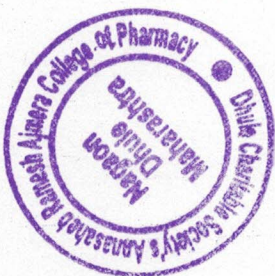
The products are swallowed by childrens and elderly. The flexibility of dosage is more than as compare to tablets.

2) ~~Exipients~~ Exipients

The vehicles are used for in suspension. The macromolecules (gelatin) and polymer type (CMC) are used as a vehicles. The vehicles are used for mixing of particles are present in suspension. The exipients are used made a pure suspension and not destroyed.

3)

Targeted drugs to the organs
a particular organ. The liposomes are targeted by liver and spleen. Some molecules are liposomes.



4) Therapy

some biological factors are prevented by therapeutic action.

silver

Germicidal

copper

Anticancer

mercury

Antibacterial

5) Absorption and toxins

Absorption of sulfur compound is more than as coarse particles. The absorption is greater and of sulfur compounds, it is prevented the toxicity. The toxins are not produced.

6) Solubility

The sulfur compounds are soluble and surface active agent is used. The dissolution and solubility is obtained.

7) Stability

Surface active agent is used in solution then the stability is occurred of liquid dosage form.

8) Coating

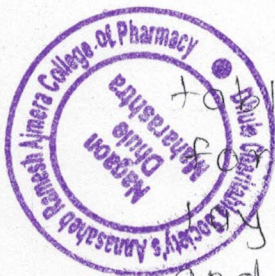
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Coating agents are used for tablets and granules. If the

formulation is occurred then upper layer is removed from the surface and coating is produced

e.g. Gelatin, HMP



g) colloids with drug removal

The ~~so~~ emulsion is not cracked then used emulsifying agent. some molecules are liposomes, nanomolecules and macromolecules are used.



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2) Air permeability method

The powder is entered in sample cell. The surface - surface of two powders are made series of number of capillaries. The number of capillaries are allows air passes. The air passes through the capillaries air pressure is formed.

The powder is resist the air passes, air not passing through the capillaries. If the air is not passes then air pressure drop is obtained and the pressure drop is not released.

The pressure drop is not released then the value of s_w is increased. The formula is used for the calculated pressure drop and ^{vapour pressure} volume of gas.

$$V = \frac{1}{n s_w^2} \times \frac{\Delta P t}{K L} \times \frac{E}{(1-E)^2}$$

where

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Volume of gas

Vapour pressure

ΔP = Pressure difference

t = time of flow

L = length

E = Porosity of liquid

K = constant





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Theory Sessional Examination 2021 - 2022

Class	F.Y.B. Pharmacy	Name of Student	Pranay Rakesh Nikam
SEM	First Semester	Roll No. (In Figure)	59
Division	A	Roll No. (In Words)	Fifty Nine.
Subject	Pharmaceutics - I Sub Code :- BP103T		

Internal Assessment	Signature of Supervisor	Max. Marks (B.Pharm)	Max. Marks (M.Pharm)	Marks Obtained	Signature
First Sessional Exam.		30	30		
Date					Examiner Sign.
Second Sessional Exam.		30	30	23	
Date 03/03/2022	03/03/22			30	Examiner Sign.
Average Marks		30	30		
Marks Out of		15	15		
Continuous Mode Assessment		10	10		
Total Marks (In Figure)		25	25		
Total Marks (In Words)		Twenty Five	Twenty Five		Student Sign.

(Continuous Mode Assessment)

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2	Assignment		05		
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5	Group Discussion		05		
6	Seminar		05		
	Total Marks		15	NA	
7	Marks Out of		03		
8	Attendance		04		
9	Student Teacher Interaction		03		
	Grand Total		10	10	



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Q1

Q1 = 88

1)

→ b). Oleaginous bases. 0/

2)

→ d). Lanolin. 0/

3)

→ b) unstable. 0/

4)

→ b) 0.1 μ m. 0/

5)

→ d). dispersed droplet tend to fuse. 0/

6)

→ c) bougies. 0/

7)

→ a). Hand molding. 0/

8)

→ a). Cocoa butter. 0/

9)

→ a). Antagonism 0/

10)

→ a). Synergism. 0/



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Q2.

a)



Emulsion is a biphasic liquid solution. which contains one is dispersed phase and another one is Continuous phase. Dispersed phase is dissolve or dilute in a Continuous phase.

There are three methods for Compounding of an emulsion :

- i) Bottle method.
- ii) Wet gum method.
- iii) Dry gum method.

i) Bottle method.

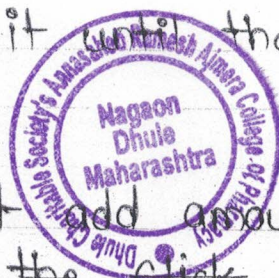
i) Bottle method is used for preparation of solution like Volatile and like non-viscous types of oil. In this method the ratio of between oil-water-gum is 2:2:1.

ii) In that take a measured quantity of gum and proceed to the bottle, and then add measured quantity of oil in that bottle.

iii) Titurate it until the uniform powder is formed.

iv) After that add amount of water. Titurate it until the the click shake it Vigorously until the emulsion is formed.

v) After that add amount of water to produce



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Q3 = 6 1/2

Q3.

2)

→ For Identification of emulsion doing 5 tests..

- i) Miscibility test.
- ii) Fluorescence test.
- iii) Colour test
- iv) Conductivity test
- v) Cobalt paper test.

i) Miscibility test

Principle :- Addition of external phase in emulsion but physiochemically stable. It

Method :- Add the external phase in emulsion and the emulsion get change the phase. It shows O/W type of emulsion.

ii) Fluorescence Test :-

Principle :- Some Oil phase shows Fluorescence in UV light.

Method :- Put the emulsion in sunlight and observe it in microscope the Contin Oil phase dispersion in Continuous phase. It shows O/W type of emulsion.

iii) Colour test.

Principle :- In Oil Phase or water phase add Colouring agent in it. It shows change in Colour of emulsion.

Method :- In the emulsion add Colouring agents and observe it in a microscope. It shows the Colouring agent dilute in the emulsion.



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iv) Conductivity test :-

Principle :- If water is continuous phase and it shows the current passes the emulsion is O/W type.

method :- Add two poles in the emulsion and complete the circuit and join a bulb to the circuit. Put current in it and if the current is pass then it is a O/W type of emulsion.

v) Cobalt paper test.

Principle :- Cobalt paper shows red colour in hydrolysis and blue in conductometry.

method :- Add the emulsion in the filter paper it shows pink to red colour. The Cobalt paper is formed from Cobalt Calcium solution.

- Emulsifying agent.

- i) It reduces interfacial tension.
- ii) It produce interfacial film.

- Emulsifying agent divided into 2 types.

- i) Natural physiochemical agents

- i) Polysaccharides :-

Natural :- Tragacanth, acacia.

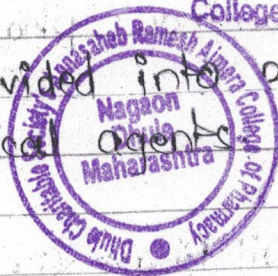
Semi-synthetic :- sodium CMC.

- ii) finely solid particles :-

milk of magnesia

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- iv) Surfactant
Semi-solid agents :- Anionic :- Alkali sope
Cationic :- Granulated aluminium
Non-Ion :- Compound.
Non-Ion :- Tweens.

ii) Natural emulsion.

- i) Monomolecular film is produce by semi-solid agents.
- ii) multimolecular film is produce by hydrocolloid.
- iii) Solid film is produce by Bentonite. 4/2

4)

- i) Ointment is a semisolid dosage form.
ii) It should apply externally on the body.
iii) The pH of Ointment is 5-5.5 in range.

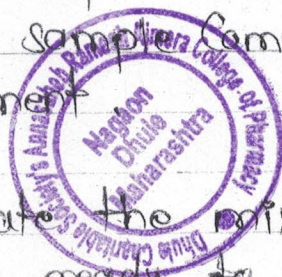
- Preparation method.

- i) Wool fat is heated and then it converted into a viscous liquid.

- ii) Then take a required amount of wool fat on a ointment plate and add the sample compound on it. This sample compound is measured as the requirement.

- iii) Then triturate the mixture until the ointment is ready to apply on skin.

- iv) The triturated trituration is done by with the help of mortar.



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v) For preparation of Ointment the large amount of mechanical energy is required.

vi) After Completion of Ointment ~~pre~~ formation procedure, Apply it on your skin and check it for the emulsion is ready or not.

vii) The Ointment is used for the beauty products.

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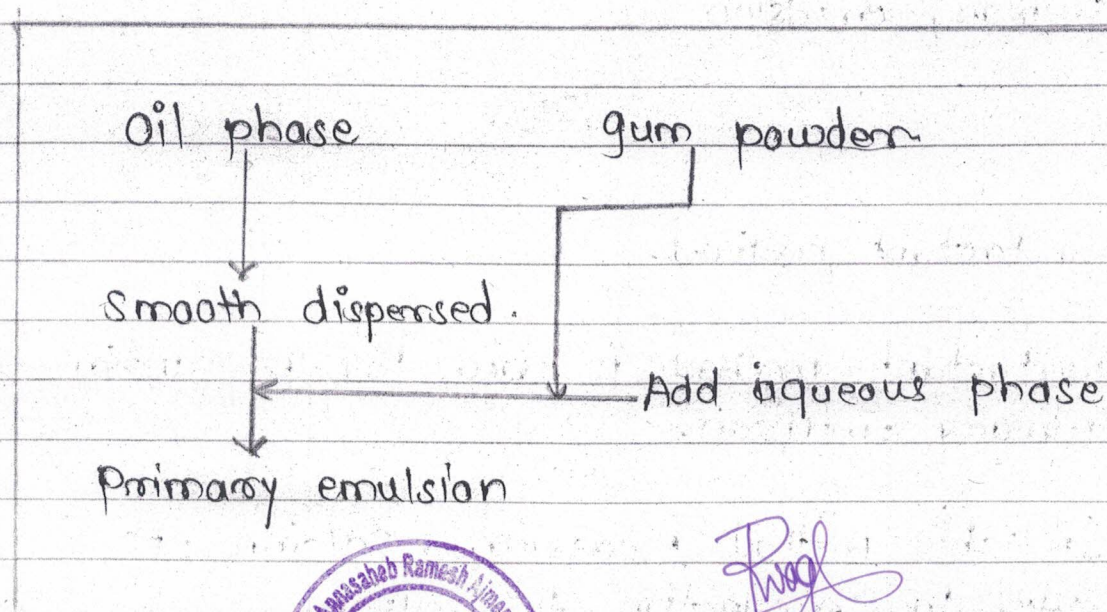


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92-08

ii) Dry gum method.

- i) Take a measured quantity of ~~oil~~ ^{gum} and add into the dried mortar and pestle.
- ii) Then add a measured quantity of ~~oil~~ ^{gum} in the mortar and pestle, Triturate it until the uniform powder is formed.
- iii) Then add some amount of water in the and triturate it vigorously until the Click Sound is produced from it.
- iv) Then make the Volume of that emulsion adding specific amount of water.



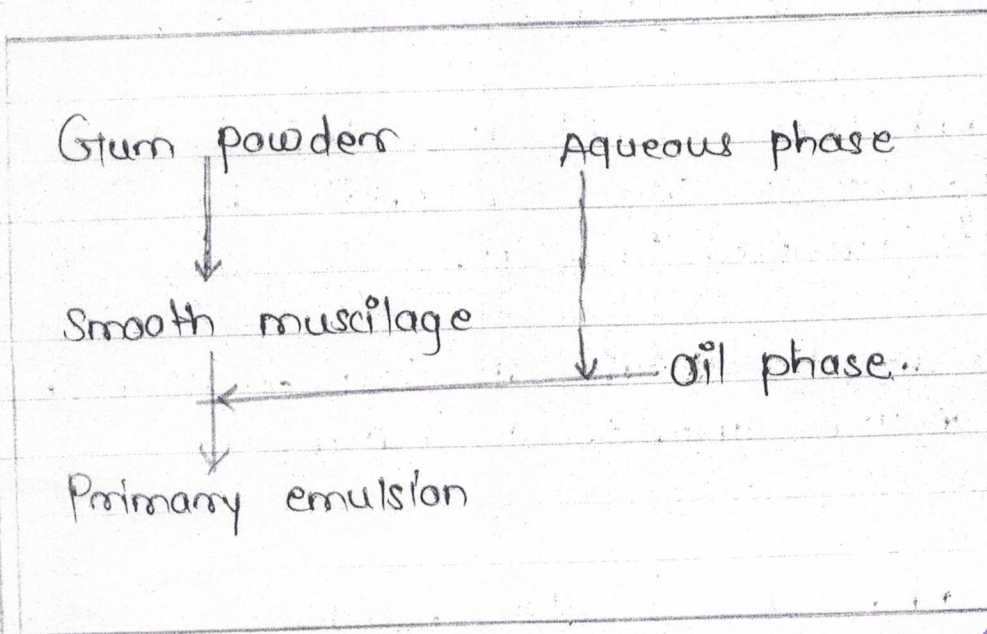
iii) Wet gum method.

- i) Take a measured quantity of ~~g~~ acacia powder and add it into the dried mortar and pestle.



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- iii) Then add some amount of water in it and triturate it until the smooth mucilage is formed and clicking sound is produced.
- iv) Then add measured amount of oil in it and triturate it ~~unt~~ vigorously until the emulsion is formed.



Surfactant method.

- i) Surfactant method is used for production of primary emulsion.
- ii) In this method potassium, calcium etc is used for production of emulsion.
- iii) This is a most Common method is used for Compounding of emulsion.
- iv) This emulsion is thermodynamically unstable in nature.

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