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Research Article

**FORMULATION AND EVALUATION OF FACE PACK BY  
USING ORANGE PEEL****<sup>1</sup>Badrinath Gajanan Deokar, <sup>2</sup>Prof. Shubhda V.Bhopale, <sup>3</sup>Dr. Swati P. Deshmukh**<sup>1</sup>Student Shraddha Institute Of Pharmacy Kondala Zamre, Washim.<sup>2</sup>Assistant professor Department of Quality control, Shraddha Institute of Pharmacy <sup>3</sup> Principal  
Shraddha Institute Of Pharmacy Washim.**Abstract:**

*Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. In the present scenario, people need to cure for various skin problems without side effects. Herbal ingredients opened The way to formulation cosmetics without any harmful effects. Herbal face packs are considered as sustaining and Productive way to appearance of skin. Thus, in the present work it is very good attempt to formulate the herbal face packs Containing naturally available ingredients like Multani mitti, Turmeric, Aloe Vera, sandalwood and orange peel. Herbal face packs are used to stimulate blood circulation rejuvenates the muscles and help to maintain the elasticity Of the skin and remove dirt from skin pores the advantage of herbal cosmetics is their non-toxic nature reduces the Allergic reactions and time tested usefulness of may ingredients Thus in the present work we found good properties for the face pack and in future further optimization studies are required On this study to find the useful benefits of face packs on human use as cosmetic products.*

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## 1.INTRODUCTION:

Since the ancient era, people are aware of the use of plants for the essential needs of a healthy and beautiful skin. Cosmetics are products used to clean, beautify and promote attractive appearance. Skin of the face is the major part of the body, which is a mirror, reflecting the health of an individual. A balanced nutrition containing amino acids, lipids and carbohydrates are required for the skin to keep it clear, glossy and healthy. In ancient times, women were very conscious about their beauty and took special care of their specific skin types. Even today, people especially in rural areas, and hilly regions go for the natural remedies like plants extracts for various cosmetics purposes like Neem, aloe Vera, tulsi, orange peel, rose etc. Herbal cosmetics are the products which are used to purify and beautify the skin.

The main advantage of using herbal cosmetic is that it is pure and does not have any side effects on the human body. People have rough skin and when they don't take sufficient care, then the skin turns dark. Due to overexposure to the sun, other pollutants etc. In this article we have formulated herbal face pack to whiten, lighten and brighten the skin naturally for men and women. This face pack has natural skin lightening property and can be easily prepared at home. Face packs with natural constituents are rich in vital vitamins that are essential for the health and glow of the skin. These substances have been proven to be beneficial for skin in many ways. Natural facial packs are easy to use. They increase the circulation of the blood within the veins of the face, thereby increasing the liveliness of the skin. A good herbal face pack must supply necessary nutrients to the skin, available in the form of free-flowing powder applied facially for the external purpose. It should penetrate deep down the subcutaneous tissues to deliver the required nutrients. Every type of skin is specific for the requirement of skin pack.

Nowadays different types of packs are available separately for the oily, normal and dry skin. Face packs are used to increase the fairness and smoothness of the skin. It reduces wrinkles, pimples, acne and dark circles of the skin. Face packs which are recommended for oily skin prone to acne, blackheads, usually control the rate of sebum discharge from sebaceous glands and fight the harmful bacteria present inside acne lesion. The leftover marks of skin can be reduced by incorporation of fine powders of sandalwood, rose-petals and dried orange peels. Herbal face packs are nowadays being used on a large scale, due to the various benefits of them over chemical based packs. They are non-toxic, non-allergic and non-habit forming.

They are natural in every aspect, having larger shelf life. They have no added preservatives. They can be easily formulated and stored over a larger span of time. Present research article deals with the formulation. And evaluation of herbal face pack for glowing skin by using natural materials i.e., multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel, banana peel..

Since the ancient era, people are aware of the use of the plans for the e essential need of Cosmetic are products that are used to clean, beautify and enhances ones look. [1] healthy and beautiful skin.

The skin of the face is the largest area of the body and act as a mirror, reflecting and individuals health. To keep the skin bright, shiny and healthy, it requires a well-balanced diet rich in amino acid, lipids and crabs. Women in ancient time were particularly concerned with their appearance and took great care of their skin types. [2]

Even today people special in rural areas and hilly regions go far the natural remedies like plant extracts for various cosmetics purposes like orange peel, sandalwood, aloe Vera, turmeric, multani mitti, etc. Herbal cosmetics are cosmetic that are intended to cleanse and beautify the skin. The primary benefits of utilizing herbal cosmetic is that they are natural and have negative effects on the human body. Men's skin has tough and when they don't take proper care of it, it Darkens due to overexposure to sun, other pollutants and other factors. [3]

Everybody wants gets fair and charming skin. Nowadays, acne black spot or head, pimples, dark circle are common among youngsters and person who suffer from it. According to Ayurveda, skin problems are normally due to impurity in blood.[4]

In Ayurveda, the herbal paste is called as "Mukha lepa" used for as facial therapy, this herbal paste smeared on face to treat acne, pimples, scars, marks and pigments. Herbal face packs are cheaper and have no side effect for getting fair skin naturally.[5]

Herbal cosmetics are the products which are used to purify and beautify the skin. The main advantages of using herbal cosmetics is that it is pure and does not have any side effect on human body. [6]

Face pack is the smooth powder which is used for facial application. These preparations are applied on the face in the form of liquid or paste and allowed to dry and set to form film giving tightening, strengthening and cleansing effect to

The skin. They are usually left on the skin for 10 to 25 minutes to allow all the water to evaporate, the resulting film thus contracts and hardens and can easily be removed. The warmth and tightening effect produced by application of face pack produces the stimulating of a rejuvenated face, while the applied face pack is eventually removed skin debris and deposited dirt gets removed with it.[7] Good herbal face pack should provide essential nutrients to the skin in the form of a free-flowing powder that can be

Applied to the face for external use. To give the needed nutrients it should penetrate into the subcutaneous tissue. Every type of skin is specific for the requirement of skin pack. Different types of packs are now available for oily, normal and dry skin types. Face packs are used to improve the skin's fairness and smoothness. It helps to get rid of wrinkles, pimples, acne and dark bags under the eyes. [8]

Cosmetics are commercially available products that are used to improve the appearance of the skin by action of cleansing, beautifying, promoting attractiveness. From the ancient time. Different herbs are used for cleaning, beautifying and to manage them. Face skin is the major part of the body, which indicates the health of an individual. 1. It consists of materials such as amino acids, lipids and carbohydrates etc. So that a balanced nutrition is required for the skin to keep it clear glossy and healthy. 2. In ayurveda, the herbal paste is called as "mukha lepa" used for as a facial therapy. This herbal paste smeared on face to treat acne, pimple, scars, marks and pigments. 3. Face pack is the smooth powder which is used for facial application. These preparations are applied on the face in the form of liquid or pastes and allowed to dry and set to form film giving tightening, strengthening and cleansing effect to the skin. 4. They are usually left on the skin for ten to twenty five minutes to allow all the water to evaporate, the resulting film thus contracts and hardens and can easily be removed. The warmth and tightening effect produced by application of face pack produces the stimulating sensation of a rejuvenated face, while the colloidal and adsorption clays used in these preparations remove the dirt and grease from the skin of the face. When the applied face pack is eventually removed skin debris and deposited dirt gets removed with it. Face packs are basically additives delivering some additional benefits. Different types of herbal face packs are used for different types of skin. Herbal face packs are helps to reduce wrinkles, pimples, acne and dark circles. Also increase the fairness and smoothness of skin. It also helps someone to boost their confidence. Ayurveda is the most useful and successful means for achieving this purpose. [4] 5. These packs are available in various

types and forms and broadly classified into the following categories: 1. Plastic masks: Wax based, latex based, or vinyl based 2. Hydrocolloid masks: Gel masks (ready to use) 3. Argillaceous masks: Clay based or earth based (ready to use or dry powder) Present research article deals with the formulation and evaluation of cosmetic herbal face pack for glowing skin at home by using natural materials i.e., multanimitti, turmeric, Aloe vera, sandalwood, orange peel, neem and nutmeg. [5]

## 2. Literature review

### J. Prathyusha, N. S. Yamani *et al* (2019)

Cosmetics play a vital role for everyone to have a joyful and sanguine life. In present scenario herbal Cosmeceuticals have more demand because they have no side effects. People having oily skin suffer from Acne, whiteheads and blackheads quite often so scrubbing become more essential. In our present study we Formulated 3 different formulations F1, F2, F3 in gel form for oily skin by using turmeric, aloe vera, cinnamon, Potato starch, activated charcoal powder, honey, green tea, lemon juice, onion, walnut shell, coconut oil, beet Root juice powder, sodium lauryl sulphate, water and evaluated by using various parameters such as physical Appearance, viscosity, pH, Spread ability, irritability, wash ability, stability studies and got fruitful results with All the tests.

### Vaidya Keshav Kakad *et al* (2022)

Many of the marketed products when applied on the skin cause dryness of skin after its long-term use Which results less life of skin problems of acne and redness. Solution for this problem is use of scrub which Consist all herbal ingredients which increases cleansing, softening, moisturizing, fairness of skin. The use of Natural ingredients to fight against acne, wrinkle and also to control secretion of oil is known as natural or Herbal cosmetics. Herbal Cosmeceuticals usually contain the plant parts which possess antimicrobial, Antioxidant and anti-aging properties. Herbal cosmetics are the safest product to use routine with no side Effects and Cosmeceuticals are the product which influences the biological function of skin.

### Millikan, Larry E. *Cosmetology et al* (2012)

Exfoliation is the process of removal of removing the old, dead skin cells that cling to the skin's outermost Surface. The two types of exfoliations are mechanical and chemical. People's opportunities for seeking Dermatological assistance for a myriad of conditions, including acne, rosacea, striae, photodamage, and skin Cancers have increased in recent years. Skin

exfoliation improves the quality and tone of skin by assisting in The removal of dead skin cells from the surface. Herbal Exfoliant produces soft, supple, re-energized skin and Prevents premature skin aging

#### **Chanchal D. and Saraf S.*et al* (2009)**

The main objective of present study was to prepare a polyhedral scrub incorporated into gel. The use Of natural ingredients to fight against acne, wrinkle and also to control secretion of oil is known as natural or Herbal cosmetics. Herbal Cosmeceuticals usually contain the plant parts which possess antimicrobial, Antioxidant and anti-aging properties. Herbal cosmetics are the safest product to use routine with no side Effects and Cosmeceuticals are the product which influences the biological function of skin. In this preparation Green apple, cinnamon, Millet, Sandalwood, Neem, Turmeric and honey is used as active ingredients and Incorporated into the gel which is prepared with carbopol of different grades. Other ingredients like propylene Glycol, Triethanolamine; methyl parahydroxy benzoate was added along with sodium lauryl sulphate into the Gel. The prepared gel was evaluated for various parameters such as appearance, pH, viscosity, Spreadability, Washability, irritability and found to be satisfied with all required characterizations. Thus, the developed Formulation can be used as an effective scrub for using it to bear a healthy and glowing skin.

#### **Miss.Telange-Patil P.V *et a l* 2022**

Now a day, human skin has become more sentient for faster aging atopic dermatitis, acne and many more skin related problem, which mainly arise due to increased pollution, allergy, microbes, etc. Acne and dull skin are the common problem arising in various people Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. The objective of this work is to formulate and evaluate a herbal face pack for acne and dull skin from herbal ingredients: orange peel, sandalwood, Multani mitti, aloe Vera, turmeric was collected from local market. The Ingredient have been reported in this research paper having good anti-inflammatory, antioxidants and anti- microbial activity. All the constituents are dried powdered and passed through sieve no. 100.

#### **Swarali Yuvraj Sadashiv *et al* 2023**

Majority of the cosmetic products available in market are of synthetic origin and causes numerous side effects when used for longer period of time. One of the solutions for this problem is use of herbal cosmetics. Herbal cosmetics are considered safe for routine use

with minimal side effects. Acne, redness, wrinkles, dark circles, pimples, dry and dead skin is some of the major skin issues. All these problems can be minimized by using herbal cosmetics such as face pack, scrub, cream, etc. Present work focused on preparation of powder based herbal face pack using natural ingredient like orange peel, neem, Tulsi, sandalwood, rose oil, etc. Orange peel was used as core ingredient for its ability to reduce acne, wrinkle and also to control excessive secretion of oil is known as natural or herbal cosmetics.

### **3. Aim and objective**

**Aim:** To formulation and evaluation of herbal face pack by using orange peel.

#### **Objective**

1. As due to increased pollution, allergy, microbe's etc. human skin has become more sensitive and prone to faster aging. An attempt has been made to synthesize a pack ideal for all skin types. After the synthesis, all the parameters have been calculated in order to meet up the quality standards.
2. To formulate and evaluate a cosmetic preparation poly herbal face pack made from herbal ingredients.
3. To moisturize, cleanse, tone and rejuvenate your skin. Masks are designed for each skin and age type.
4. The face pack is providing the Nourishment to the skin.
5. Its help to remove the dead cells from facial skin.
6. These are providing a soothing and relaxing effect on skin.
7. The face pack are used regularly for glow, improve skin texture and complexion.
8. The harmful effects of pollution and harsh climates can be reduced by the use of face pack.
9. They help to prevent premature aging of skin.
10. They prevent the formation of wrinkles, fine lines and sagging of skin. [9]
- 11.

#### **4. Plan Of Work :-**

Step 1:- Collection Of herbal drug

Step 2:- Identification of drug

Step 3:- Method of preparation

- Weight Variation
- Mixing
- Sieving

Step 4:- Evaluation of Product

- PH



- Bulk density
- Tap density
- Angle of repose

Step 5 :- Collection and Storage

## 5. Drug & Plant Profile

Present research article deals with the formulation and evaluation of herbal face pack for glowing skin By using natural ingredient i.e. Multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour and orange peel. They were purchased From local market in the form of dried powder. The powder of banana peel was prepared by shade drying Commercially.

All ingredients authenticated at Botany department of Aditya Institute of Pharmaceuticals, Beed. The details Of the natural ingredient used for the formulation of herbal face pack are mentioned below.

Ingredients of formulations



### 5.1 Multani Mitti

**Fig no. 1 Multani Mitti**

**.Scientific name:** Fuller's Earth.

**Synonym:** Multani mitti.

**Biological source:** Multani mitti is a mineral-rich clay-like substance that gets its name from its city of

origin, Multan in modern day Pakistan. With a texture that's much finer than clay and with a higher water content, Multani mitti is known for decolorizing oil and other liquids without harsh adverse reactions.

**.Chemical constitute:** Silica, iron oxide, lime, magnesia and water.

**Uses:**

- 1) Fight acne and pimples.
- 2) Removes excess sebum and oil, deep cleanses skin removing dirt, sweat and impurities.
- 3) Evens out skin tone and brightens complexion.
- 4) Treats tanning and pigmentation.

Calcium bentonite helps skin by different ways like diminishing pore sizes, removing blackheads and whiteheads fading Freckles, soothing sunburns, cleansing skin, improving blood circulation, complexion, reducing acne and blemishes and Gives a glowing effect to a skin as they contain healthy nutrients. Multani mitti is rich magnesium chloride.

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### 5.2. Turmeric



**Fig no.2 Turmeric**

**Scientific name:** Curcuma longa.

**.Synonym:** Turmeric root, wid curcuma.

**Biological Source :** Turmeric consists of dried, as well as, fresh rhizomes of the plant known as Curcuma longaLinn. (C. domestica), belonging to family Zingiberaceae

**.Family:** Zingiberaceae.

**.Chemical constitute:** Curcumin I, Curcumin II, III, dihydrocurcumin, 3-6% polyphenolic compounds, Curcuminoid's, Dimethoxy curcumin and bisdemethoxycurcumin.

**.Uses:**

- 1) Antibacterial activity.
- 2) Antifungal activity.
- 3) Also adds glow to the skin.

Turmeric is mainly used to rejuvenates the skin. It delays the signs of aging like wrinkles and also possesses other Properties like antibacterial, antiseptic and anti-inflammatory. It is best sources of blood purifier. It is effective in Treatment of acene due to its antiseptic and antibacterial properties that fight pimples and breakouts to provide a youthful Glow to your skin. It also reduces the oil secretion by the sebaceous gland

Turmeric has been used in this preparation due to its blood purifying property and helps in Wound healing, because of its antiseptic action. It cures the skin diseases occurring due to blood impurities. It Is a very good anti-inflammatory and anti-allergic agent. The phytoconstituents, mainly terpenoids present in It helps to lighten the skin tone. Turmeric delays the signs of aging like wrinkles, improves skin elasticity. It Cures pigmentation, uneven skin tone and dull skin.

### 5.3. Sandal wood



**Fig no.3 Sandal wood**

**Scientific name:** Santalum alba.

**Synonym:** Sandal, Indian sandalwood oil.

**Family:** Santalaceae.

**Biological source:** Sandalwood consists of the heartwood of the stems and roots of Santalum album Linn., an evergreen small tree of the family Santalaceae

**Chemical constitute:** 90% Sesquiterpenic alcohols of which 50-60% is the tricyclic alpha-santalol, beta-Santalol comprises 20-25%.

**.Uses:**

- 1) Anti-tanning property.

- 2) Anti-aging property.
- 3) Skin softening effect.
- 4) Pimple and acene treatment.
- 5) Clear complexation.

Sandalwood has an anti-tanning and anti-aging property. It also helps skin in many ways like toning effect, Emollient, antibacterial properties, cooling astringent property, soothing and healing property.

### 5.4. Orange peel



**Fig no.4 Orange peel**

**Scientific name:** Citrus reticulate.

**Synonym:** Sweet orange.

**Family:** Rutaceae.

**Biological Source:** Orange peel is dried or fresh outer part of the pericarp of the ripe or nearly ripe fruits of Citrus aurantium Linn, family Rutaceae. It contains not less than 2.5 per cent of volatile oil.

**Chemical constitute:** Limonene (90%), Chitral(4%), Vitamin C, Pectin, Hesperidine, Aurantimaric acid, Octanol (39%), Decanal (42%), Monoterpene (91%) & contains no less than 2.5% volatile oil.[13]

**.Uses:**

- 1) Lighten and brighten skin.
- 2) Cells build up around the pores enhancers the shadows and make the pores appear larger.
- 3) Hydrates Dehydrates skin.
- 4) Promotes healthy skin glow. [14]

It prevents the skin from free radical damage, skin hydration and oxidative stress. Also it has instant glow property Prevent acne, blemishes, wrinkles and aging. [15]

Orange peel is a covering of citrus fruit which contains different nutritional source such as

vitamin C, Calcium, potassium and magnesium. It prevents the skin from free radical damage, skin hydration and Oxidative stress. Also it has instant glow property, prevent acne, blemishes, wrinkles and aging.

#### Aloe Vera.



Fig no.5 Aloe vera

**Scientific name:** Aloe Barbadians.

**Synonym:** aloe, Kumari.

**Family:** Asphodelaceae.

**Biological Source:** Aloe is the dried juice collected by incision, from the bases of the leaves of various species of Aloe. Aloe perryi Baker, Aloe vera Linn or Aloe barbadensis Mil and Aloe ferox Miller, belonging to family Liliaceae.

**Chemical constitute:** Amino acid, vitamins, lipids, sterols, tannin and enzymes, phenol, saponin, Antithraquinones.

#### 7. Equipment's and Materials:

Sr No.	Equipment
1	Mortar pestle
2	Hot air oven
3	Sieve no.80
4	Spatula
5	Weighing balance

#### Uses:

- 1) Moisturizing agent delivers smoothening property to the skin.
- 2) Remove dead skin cells.
- 3) Treating acene, sunburn.
- 4) Rights ageing.

Aloe Vera is a great moisturizing intended for a skin. Aloe Vera rejuvenates skin, hydrates this and keeps skin layer

Looking fresh all the time. Aloe Vera has anti-microbial activity rendering it ideal to deal with acene and pimples. Aloe Vera powder contains several nutrients like glycerin, sodium palmate, sodium carbonate, sodium pain kemelate, sorbital, Etc.[17]

#### 6. Method of preparation

All the herbal ingredient are in dry form and grinded to make fine powder by using size reduction mill. Weighing all The required herbal powder for fruit mask preparation were accurately weighed individually by using digital balance. The quantity and composition are listed in Composition of herbal face pack or mask

**Mixing:** All these fine ingredients were mixed thoroughly by mixer to form a homogenous fine powder.

**Sieving:** Then this fine powder was passed through sieve no. 100, to get the sufficient quantity of fine powder.

**Collection & Storage:** The powder mixture was collected and store in a suitable plastic container and used for Evaluation parameters

**Material**

Sr.no	Ingredients	Quantity
1	Oreng peel	15%
2	Sandalwood	15%
3	Aloe Vera	15%
4	Calcium bentonite	15%
5	Turmeric	15%

**Formulation table**

Sr. No.	Name of ingredient	Quantity of sample for 50		
		F1	F2	F3
1	Multani mitti	4.2	4.7	4.9
2	Turmeric	4.8	4.8	5.9
3	Sandalwood	15	12.9	15
4	Orange peel	25.9	28.9	25
5	Aloe vera gel	1	0.5	1

**8. Evaluation:**

Following evaluation parameters were preferred to ensure superiority of prepared face pack

**Organoleptic evaluation:**

The organoleptic parameters include its nature, colour, Odour, feel and consistency which were evaluated manually for Its nature, odour, feel and consistency which were evaluated manually for its physical properties. [24]

**pH:**

PH of 1% aqueous solution of the formulation was measured by using a calibrated digital PH meter at constant

**Irritancy test:**

Mark an area of 1sq.cm on the left-hand dorsal surface. A definite quantity of prepared face packs was applied to the Specified area and time was noted. Irritancy, erythema, edema was checked if any for regular intervals up to 24 hrs Andreported. [25]

**Stability studies:**

Stability testing of prepared formulation was conducted for batch B3 by storing at different temperature conditions For the period of one month. The packed glass vials of formulation stored at different temperature conditions viz. room Temperature, 35degree C and were evaluation for physical parameters like colour, odour, PH, consistency and feel. [26]

**Determination of moisture content:**

Weigh about 1.5gm of the powdered drug into a weighed flat and thin porcelain dish. Dry in the oven at 100 degree C at 105 degree C, until two consecutive weights do not differ by more than 0.5 mg cool in desiccators and weigh. The Loss in weight is usually recorded as moisture. [27]

**Determination of rheological properties of the prepared pack:**

Physical parameters like untapped (Bulk) density, tapped density, angle of repose, Hausner's ratio and Carr's index Were observed and calculated for the formulation. Bulk density refers to the adjustment of particles and granules to pack Themselves collectively. The Hausner's ratio is calculated as  $D/D'$  where D is the tapped density and D' the bulk density, Carr's index



helps to measure powder flow from bulk density. [28, 29]

#### Angle of repose:

It is defined as the maximum angle in between the surface of pile of powder to the horizontal flow.

#### Bulk density flow:

Density is the ratio between the given mass of a powder and its bulk volume. Required amount of the powder is dried and filled in a 50 ml measuring cylinder up to 50 ml mark. Then the cylinder is dropped onto a hard wood surface from a height of 1 m at 2 second intervals. The volume of the powder is measured. Then the powder is weighed. This is reported to get average values. The bulk density is calculated by using the below given formula. Bulk density = Volume/mass.

#### Particle size:

Particle size is a parameter which affects various properties like spread ability, grittiness, etc. Particle size was determined by sieving method by using LP. Standard sieves by mechanical shaking for 10 min.

#### Tapped density:

Tapped density is an increased bulk density attained after mechanically tapping a container containing the

powder. Volume or mass of the measuring cylinder or vessel is mechanically tapped for 1 min and volume or mass reading is taken until little further volume or mass change was observed. It was expressed in gram per cubic centimetre (g/cm<sup>3</sup>).

#### Phytochemical screening:

The aqueous extract of the herbal face pack was evaluated for the presence of different phytoconstituents as per the standard procedure. [26]

#### Wash ability:

This is the common method for checking the wash ability of the formulation. The formulation was applied on the skin and then ease and extend of washing with water were checked manually by using 1 litre of water is used to remove all content of the formulations were applied on the surface. [28]

#### Microbial assay:

The antibacterial activities of all four formulations were determined by modified agar well diffusion method. In this method, nutrient agar plates were seeded with 0.2 ml of 24 hrs broth culture of *Escherichia coli* and *Staphylococcus aureus*. The agar plates were allowed to solidify. The plates were incubated at 37 degree C for 24 hrs. The antibacterial activities were evaluated by measuring the zones of inhibition. [28]

## 9. RESULT AND CONCLUSION:

### Organoleptic evaluation

Sr. No.	Parameter	Observation
1	Appearance	power
2	Colour	Slight yellow
3	Odour	Slight
4	Texture	Fine

Table No.01

### 1. Particle size

Sr. No.	Batch	Observation
1	F1	26.4 ± 5.44
2	F2	22.5 ± 2.85
3	F3	24.8 ± 4.30

Table No.02

### 2. pH

Sr. No.	Batch	Observation
1	F1	7.66 ± 0.13
2	F2	6.65 ± 0.01
3	F3	6.79 ± 0.016

Table No.03

## 3. Irritancy

Sr. No.	Batch	Observation
1	F1	+(ve)
2	F2	- Nill
3	F3	+(ve)

Table No.04

## 4. Smoothness

Sr. No.	Batch	Observation
1	F1	Smooth
2	F2	Smooth
3	F3	Smooth

Table No.05

## 5. Washability

Sr. No.	Batch	Observation
1	F1	Easily washable
2	F2	Easily washable
3	F3	Easily washable

Table No.06

## 6. Microbial assay

Sr. No.	Batch	Observation
1	F1	No microbe present
2	F2	No microbe present
3	F3	No microbe present

Table No.07

## 7. Stability

Sr. No.	Batch	Observation
1	F1	Stable
2	F2	Stable
3	F3	Stable

Table No.8

## DISCUSSION:

Herbal face packs or masks are used to stimulate blood circulation, rejuvenates the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their nontoxic nature, reduce the allergic reactions and time tested usefulness of many ingredients. Formulation was creamish yellow in color and had semisolid consistency. The formulation was found homogenous, easily washable and also had very slightly alkaline pH which were compatible with normal skin physiology. Angle of repose is a characteristic related to inter particulate friction or resistance to the movement between the particles. The flow property has been classified as per limit of Indian Pharmacopoeia in terms of the angle of repose. The results of all these parameters indicated that the dried powder of combined form possess good flow properties and good packing ability. Consequently, it exhibited good flow

properties for formulation to achieve soft, fresh and clean formulation.

## 8. CONCLUSION:

Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. In the present scenario, people need to cure for various skin problems without side effects. Herbal ingredients opened The way to formulation cosmetics without any harmful effects. Herbal face packs are considered as sustaining and Productive way to appearance of skin. Thus, in the present work it is very good attempt to formulate the herbal face packs Containing naturally available ingredients like Multani mitti, Turmeric, Aloe Vera, sandalwood and orange peel. Herbal face packs are used to stimulate blood circulation rejuvenates the muscles and help to maintain the elasticity Of the skin and remove dirt from skin pores the advantage of herbal cosmetics is

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## 10. REFERENCE:

- 1) Rani S. Hiremath R. Formulation and evaluation of poly – herbal face wash gel. World J Pharm Pharmacy 2015; 4(6);585-8.
- 2) Sowmya KV, Darsika cx, Grace F, Shanmuganathan S, Shanmuganathan S. Formulation and evaluation of poly – herbal face wash gel – 4(6) : 585-588... World J Pharma and Pharma sci 2015;4(6) : 585-8.
- 3) Ashwant MS, Banchhor M. Herbal cosmetics Trends in skin care formulation, Pharma cogn Rev 2009; 3(5) : 82-9.4) Seema Yuvraj Mendhekar, Pratiksha Sukhadev Sonawane, Rupali Bajirao kale, Jadhav S.L. and Gaikwad D.D Formulation and evaluation of Polyherbal face pack. World Journal of Pharmacy and Pharmaceutical sciences 2017; 6(12) ; 1378-1387.
- 5) Sachin Bhagwat Aglawe, Amol Uttamrao Gayke, Suraj Anil mindhe, Varsha Gajanan Rane. Formulation and evaluation of herbal face pack. International Journal of Pharmacy and biological sciences. 2018; 8(4) ; 49-52.
- 6) Avinash O Maske, Manisha Pandhare, Ashwini D. wanjari. Formulation and evaluation of herbal face pack for glowing skin. International of Advances in Pharmaceutics 2019; 8(1); 1-5.
- 7) Sachin B Somwanshi, kiran S. Kudhale, Ramdas T Dolas, Kiran S Kotade. Formulation and evaluation of cosmetics herbal face pack for glowing skin. International Journal pf Research in Ayurveda and Pharmacy. 2017; 8(3); 199-203.
- 8) Mithal BM, SadhaRN. A hand book of cosmetics.
- 9) Milikan, Larry E. cosmetically, cosmetics, cosmeceuticals: definition and regulations. Clinics in dermatology, 2001, 19(4); 271-274.
- 10) Swarmalatha saraf, Shailendra saraf. Cosmetics a practical manual, Pharma and med press, 2nd edition, 2005.p126-129.
- 11) C.V.S. Subrahmanyam, Teaxt book of physical pharmaceutics. 2011 edition, Published by vallabh Prakashan pg no; 195- 200.
- 12) C.K. Kokate, text of pharmacognosy, edition 46, Published by nirali prakashan, pg no; 1.46-1.48.
- 13) Orange peel Biological source, Morphological features, chemical constitues and Uses. Nov.03, 2020. www.gpatindia. Com.

- 14) Sways you can use orange peel to get glowing skin. Updated on march 02, 2021. www.times now news.Com.
- 15) Himaja N, Ashok Kumar A, Bhatt. kumar B. Preparation and evaluation of poly herbal fruit face mask. J Res Pharm sci 2015; 2(11): 07-13.
- 16) Nemade Ct, Baste N. Formulation and evaluation of a herbal facial scrub. World J Pharm Ress 2014; 3(3): 4367-4371.
- 17) Rajeswari R, Umadevi m, Rahale cs, Pushpa R. Selvavenkadesh S. Sampath kumar Kp, Bhowmilk D. Aloe Vera; The miracle plant Its medicinal and Traditional uses in India. J Pharmacognphytochem 2012; 1(4): 118-124.
- 18) Hawang JK, shim JS, Gwan SH, Kwon YY, ch HI et al. Novel use of Panduratin derivatives or extract of Kaempferia pandurata comprising the same. U.S. patent 0065272 Al, 2012 [cited 2016 Aug 05].
- 19) Michelle O' Sullivan, Turmeric is an effective homemade face pack ingredient to help open pores, Nov 2016 [cited 2016 Dec 13]. Available for:- <http://newswire.net/newsroom/pr100094136>.
- 20) Best Benefits of Turmeric (Haldi) for skin, Hair and health- No.4 Is the Best Nov 2016 [cited 2016 Dec. 13] Available form:- <http://www.stylecraze.com/articles/turmeric-history-how-to-use-benefits>.
- 21) Buhse L, kolinski R, Westenberger. B, wokovich A, spencer j, chen CW et al. Topical drug classification Int j Pharm 2005; 295: 101-112.
- 22) Farheen B, Mohammad I. Design and development of Unani face pack for skincare. European J Pharm Med Rees 2016; 3(12): 627-632.
- 23) Dr. K.R. Khandelwal, Dr. Vrunda Sethi, Dr. Practical Pharmacognosy techniques and experiments practical, Pharmacognosy 2012 edition, published by nirali prakashan, pg no. 23.8-23.10,25.5.
- 24) Lachmen L. Liberman HA, kanig JL. The theory and practice of Industrial Pharmacy 3rd ed.1987.
- 25) Aulton ME. Pharmaceutics. The Science of dosage form design 2nd ed. 2022
- 26 ) Khandelwal KR. Practical Pharmacognosy 12<sup>th</sup> ed.2004.
- 27) Joshan and S. Nagarauk R, Anuradha, P. Antibacterial properties of exatracts of Indian medicinal plants: Syzygium alternifolium, Phyllanthus niruri and rubi cordifolia, Biomedical and Pharmacology Journal, 3:1 2011 pg. no. 123-128.
- 28) Choudhri, R.K. Emblica cascading anti-oxidants: Novel natural skin care ingredients. Page no.15: 374-380.