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A BRIEF STUDY OF FORMULATION AND EVALUATION OF HERBAL TAN FACE PACK

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ABSTRACT
Most of the tanning has become a significant skincare issue because of pollution, stress, UV radiation, and lifestyle choices. The goal of the current effort is to synthesize a herbal anti-tan medication and evaluate its many properties for both stability and effectiveness. cosmetic products available in the market are of synthetic origin and causes numerous side effects when used for longer of the cosmetic products available in the market are of synthetic origin and cause numerous side effects when used for longer periods. One of the solutions to this problem is the use of herbal cosmetics. Herbal cosmetics are considered safe for routine use with minimal side effects. Acne, redness, wrinkles, dark circles, pimples, and dry and dead skin are some of the major skin issues. All these problems can be minimized by using herbal cosmetics such as face packs, scrubs, creams, etc. Present work focused on the preparation of powder-based herbal face packs using natural ingredients like orange peel, neem, tulsi, sandalwood, rose oil, etc. Orange peel was used as a core ingredient for its ability to reduce acne, and wrinkles and also to control the excessive secretion of oil is known as natural or herbal cosmetics. The formulation was evaluated for its appearance, spreadability, smoothness, irritability, pH, etc. From the results obtained from evaluation parameters, it can be concluded that the prepared face pack can be safely used.

KEYWORDS: Herbal cosmetics, Scrub, Softening, Cleansing, Moisturizing and Fairness and Natural Face Pack.

I. INTRODUCTION

Larger time cosmetics are intended to be applied to use of skin care products over human body for grown in popularity. The human body for cleansing, beautify, promoting attractiveness, and the appearance of skin. People utilize variety to protect their bodies, improve their personalities, and avoid body odour, such various forms or types to intensify the beauty of skin. A cleanser is facial skin of impurities. Face pack is fine powder or paste with smooth texture, supposed to be applied on facial skin as a thin layer and allowed to dry for few minutes, leaving behind a film which can be easily washed of with waster. Routine application of face pack exfoliates skin, removes dry skin, dead skin, provides some soothing, cooling, moisturizing and nourishing effects, and provides skin tightening, strengthening effects, based on type of formulation, also helps to remove dirt and grease from skin without actually altering the normal physiological functioning of skin. Generally an herbal face pack should provide necessary nutrients and vitamins to skin while penetrating into sub cutaneous tissues and outermost layers of skin without actually altering the normal physiology of skin. Based on different skin type, face pack can be formulated with variety of ingredients depending on desired property in order to prepare nourishing and moisturize face pack different oils an butter like coconut oil, almond oil, shea butter and cocoa butter are used.

Present research work aimed to formulate and evaluate poly herbal face pack to promote nourishment and glow of skin by using natural material like multani mitti (Fullers Earth), sandal wood, beet root powder, rose peral, neem leaves, tulasi powder, turmeric powder, coffee powder, basen powder. The face pack can also be used as scrub to remove dried, dead and flecky skin.

II. OBJECTIVES

- To remove the dark circle, pimples, scars, through the increase blood circulation and maintained it and the rejuvenates the skin and remove dirt particles from the skin pores.
- Herbal face packs provides vital nourishment to the skin.
- Herbal face packs help rejuvenate the skin's muscles and maintain its elasity.

- Herbal face pack improves the skin's texture and complexion.
- Herbal face packs help retain the skin's elasticity, which can help control premature aging.
- Promote healthy skin, boosting collagen production and improving skin elasticity.
- Lighten skin discoloration and reduce tan caused by sun exposure.
- Regulate excess oil without drying out the skin.
- Herbal face powders help to balance oil production preventing the skin from becoming overly greasy while providing a matte finish.

III. HERBAL DRUGS USING FACE PACK

Herbal face packs are mixtures of natural ingredients applied to the skin for various cosmetic and therapeutic benefits. They have been used traditionally in Ayurveda and other holistic systems of medicine. These face pack are primarily used for skin rejuvenation, improving complexion, and treating skin aliments.

Benefits of Herbal face pack

1. **Natural and Safe:** Free from synthetic chemicals and preservatives.
2. **Skin Rejuvenation:** Enhances skin tone and texture.
3. **Detoxification:** Removes impurities and toxins from the skin.
4. **Treatment of Skin Condition:** Effective in managing acne, blemishes, and pigmentation.
5. **Moisturization and Hydration:** Improves skin moisture content.
6. **Anti-Agin Properties:** Reduces fine lines and wrinkles.

Herbal ingredients in face pack

1. **Neem (Azadirachta indicia)**
- **Uses:** Antibacterial, antifungal, and anti-inflammatory properties.
- **Benefits:** Treats acne, reduces scars, and soothes irritated skin

2. **Turmeric (Curcuma longa)**
- **Uses:** Antioxidents and anti-inflammatory.
- **Benefits:** Brightnes skin, reduces pigmentations, and combats acne.

3. **Multani Mitti (Fuller's Earth)**
- **Uses:** Absorbs excess oil and deep cleanses.
- **Benefits:** Unclogs pores, treats oily skin, and improves skin texture.

4. **Sandalwood (Santalum album)**
- **Uses:** Cooling and antiseptic properties.
- **Benefits:** Improves complexion, reduces blemishes, and provides a calming effect.

5. **Rose petals**
- **Uses:** Rich in antioxidants and soothing agents.
- **Benefits:** Hydrates skin, imparts glow, and calms redness.

6. **Tulsi petals (Holy Basil)**
- **Uses:** Antioxidants and anti-inflammatory
- **Benefits:** Traditionally used in Ayurvedic medicines, Incorporated in teas.

7. **Beet Root (Beta vulgaris)**
- **Uses:** Rich in nitrates, Enhances athletic performance
- **Benefits:** Brightens complexion and gives a natural glow

8. **Flax seeds (Linum usitatissimum)**
- **Uses:** Hydration and moisturization and anti-inflammatory.
- **Benefits:** Hydrate and nourish the skin.

9. **Coffee powder(Coffea Arabica)**
- **Uses:** Reduces puffiness and exfoliates dead skin cells
- **Benefits:** Used in beauty products for exfoliation.

10. **Beasn Powder(Chickpea flour)**
- **Uses:** Cleanses skin and Controls oil production.
- **Benefits:** As a natural exfoliant in skin care.

Chemical constituents

1. **NEEM**

Neem is a very famous medicinal herb in the field of Ayurvedic medicine system. Around 5000 years ago, it was used a traditional medicine.

SYNONYM

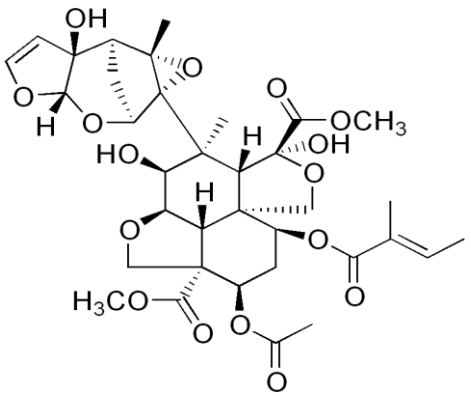
Margosa, arishth, nim tree, and nimbi.

BIOLOGICAL SOURCES

Neem consists of all the aerial parts of "Azadirachta indica**".**

FAMILY

Meliaceae.



CHEMICAL CONSTITUENTS

Nimbidin is the bitter constituent of neem. The seeds contain 45% of the oil. In 1968 a complex liminoid compound, azadirachtin was isolated from the neem seeds and its structure was established in 1975.

THERAPEUTIC EFFICACY

The therapeutic uses of neem are:

1. Its bark is used as a good bitter tonic, astringent, and an antiperiodic.
2. It is used in the treatment of malarial fever.
3. Its bark is also used for skin diseases.
4. It is used as a liniment for trating rheumatism.
5. Its oil also has anthelminitic and insecticidal property.

2. TURMERIC

Turmeric is a spice which provides yellow colour to the curry. In India, it is in use for thousands of as a spice as well as a medicinal herb.

SYNONYMS

Indian saffron and turmeric.

BIOLOGICAL SOURCE

Turmeric is the dried and fresh rhizomes of curcuma longa linn. (C. domestica). It should contain not lees than 4% of volatile oil, C. amada, C. angustifolia, c. curcuma.

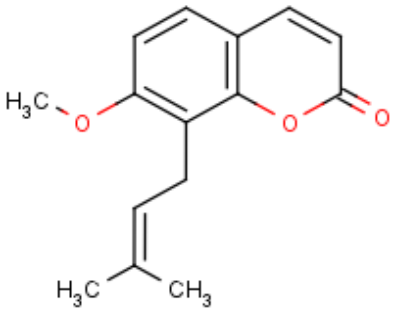
FAMILY

Zingiberaceae.

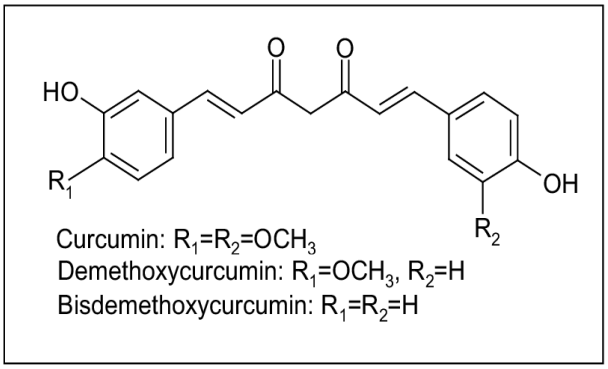
CHEMICAL CONSTITUENTS

Turmeric consists of volatile oil (1-6.5%), resin, numerous zingiberaceous starch grains, and curcuminoids (yellow coloured substances). Curcumin (50-60%) is the major constituent of curcuminoids. Curcumin and other related curcuminioids impart the yellow colour in some species.

Volatile oil contains mono and sesquiterpenes (like α and β pinene, α-phellandrene, camphor, camphene, zingiberne, and α, β curcumenes. C.angustifolia and C. caulina species have high content of starch.



DL-ar-Turmerone



Curcumin

THERAPEUTIC EFFICACY

Turmeric has the following therapeutic uses

1. It is used as a colouring agent for ointments and creams.
2. It is used for the detection of boric acid.
3. It is used asa a an anti-inflammatory.
4. In china, C. wenyjuin is used for cervical cancer.
5. It is usede as an antiarthritic agent, which has been isolated from C. aromatic species.

3. TULASI

Tulasi is generally referred as the "ELIXIR OF LIFE; in the Ayurvedic system due to its therapeutic properties and has been used to cure a variety of health conditions. It has been used for more than 3000 years in Ayurvedic treatment.

SYNONYMS

Sacred basil, Holy basil.

BIOLOGICAL SOURCE

Tulsi consists of fresh and dried leaves of Ocimum sanctum Linn. And contains not less than 0.40% cent eugenol on dried basis.

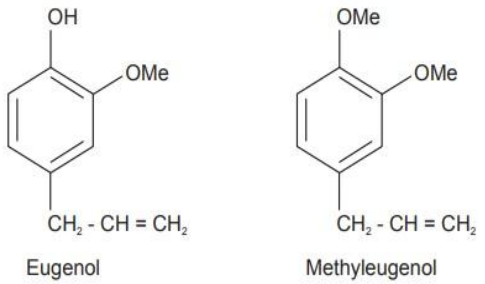
FAMILY

Lamiaceae.

CHEMICAL CONSTITUENTS

Tulsi leaves contains bright, yellow coloured and pleasant volatile oil (0.1-0.9%). The oil content of the drug varies depending upon the type, the place of cultivation and season of its collection. The oil is collected by stem distillation method from the leaves and flowers tops.

The plant is also reported to contain alkaloids, glycosides, saponin, tannins, an appreciable amount of vitamin C, and traces of maleic, citric and tartaric acid.



Eugenol Methyleugenol

THERAPEUTIC EFFICACY

The therapeutic uses of tulsi are:

1. Tulsi helps the body adapt to strees and promotes overall well-being.
2. It has been shown to fight bacterial and fungal infections.
3. Tulsi reduces inflammation, which can help with conditions like arthritis.
4. It supports heart health by reducing cholesterol and blood pressure.
5. It helps in regulating blood sugar levels, which is beneficial for people with diabetes.

4. FLAX SEEDS

Flaxseeds is a medicinal oil seed crop that has many potential health benefits and pharmaceutical uses. Flaxseed is high in fiber and contain a gummy material called mucilage, which can help relieve constipation.

SYNONYMS

Linseed, Common flax, Flax weed, Toad flax.

BIOLOGICAL SOURCE

Flax seeds come from the flax plant, Linum usitatissimum, The flax plants is an annual herb with small, lance-shaped leaves and slender stalks. Flax seeds is a rich source of nutrients, including: Omega-3 fatty acids, fiber, protein, Lignans, Cyclolinopeptides.

FAMILY

Linaceae.

CHEMICAL CONSTITUENTS

Flax seeds contains chemical constituents.

Fatty acids: Flaxseeds oil is made up of a variety of fatty acids, including

- **Alpha-linolenic acid**: A triply unsaturated fatty acid that make up 51.9-55.2per of linseed oil.
- **Oleic acid**: A monounsaturated fatty acids that makes up 18.5-22.6per of linseedoil.
- **Linoleic acid**: A doubly unsaturated fatty acid that makes up 14.2-17per of linseed oil.
- **Palmittic acid**: A saturated fatty acid that makes up about 7per of linseed oil.
- **Stearic acid**: A saturated fatty acid that makes up 3.4-4.6per of linseed oil.

The chemical composition of flaxseed can vary depending on the plant and the genetic makes up of the plant and the environmental conditions during its growth and storage.

THERAPEUTIC EFFICACY

Flax seeds has the following therapeutic uses

1. It has been used in traditional practices for its potential laxative and skin-supporting properties.
2. It is also known to help maintain healthy cholesterol and blood sugar levels. Insoluble fiber increases the bulk of stool, promoting bowel regularity.
3. It reduces the inflammation and that supports heart health by reducing inflammation and improving.
4. The nutrient in flax seeds, including omega-3 fatty acids and antioxidants, can improve skin hydration and elasticity.
5. Flax seeds are packed with essential nutrients like B vitamins, magnesium, phosphorus, potassium, and calcium, which contribute to overall healh.

5. BEET ROOT

The root of the beet root (Beta vulgaris), is a valuble component in pharmacognosy due to its rich nutritional profile and therapeutic properties.

SYNONYMS

Beta vulgaris rubra.

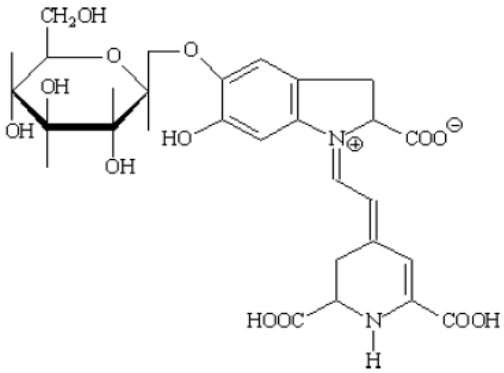
BOLOGICAL SOURCE

Beet root powder is derived from the root plant, scientifically known as Beta Vulgaris. In pharmacognosy, beet root is valued for its rich content of

betalains, which are natural pigments with antioxidant properties. These pigments are responsible for the deep red color of beetroot and have been studied for their potential health benefits, including antiviral, antimicrobial, and anti-inflammatory properties.

CHEMICAL CONSTITUENTS

Contribute to its nutritional and medicinal properties. Some of the compounds found in beet root. There are pigments responsible for the red and yellow colors of beet root. These compounds have antioxidant properties and contribute to the health benefits of beet roof. Antioxidant activity, flavonoids help protect the body against oxidative stress



THERAPEUTIC EFFICACY

Beet root has the following therapeutic uses

1. It is rich in antioxidants like gallic acid, ascorbic acid, and phenolic compounds, which help combat oxidative stress and protect cells from damage.
2. The betalains and phenolic compounds in beet root powder help neutralize free radicals, reducing oxidative stress and inflammation.
3. The content of nitrates in beet root powder can improve blood flow and lower blood pressure, promo5ing heart health.
4. The anti-inflammatory properties of beet root powder can help alleviate conditions like arthritis and other inflammatory diseases.
5. Beet root powder is a versatile and beneficial ingredient in both food and medicine, making it an important subject of study in pharmacognosy.

6. COFFEE

Caffein the main active ingredient of coffee, is a natural methylanthine derivative that acts as an antagonist of adenosine A1, A1a, and A2b receptors.

SYNONYMS

Coffee bean, Arabica coffee, and Arabin coffee.

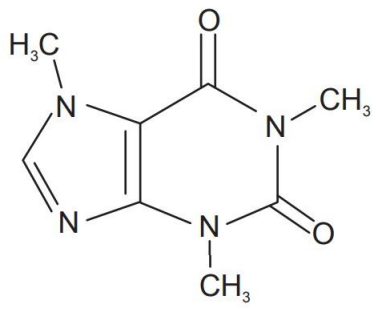
BIOLOGICAL SOURCE

It is the dried ripe seeds of coffea Arabica linn, and coffea canephora. Coffee plants are evergreen shrubs or small trees that can grow up to 10 meters tall, but they are usually pruned to around 2-3 meters for easier harvesting. The leaves are glossy, dark green, and oval-shaped. Coffee plants produce small, fragrant white flowers that bloom in clusters. The fruit, know as a coffee cherry, is a drupe that turns red or purple when ripe. Each cherry typically contains two seeds, which are the coffee beans.

CHEMICAL CONSTITUENTS

The main constituents of coffee are caffeine, tannin, fixed oil and proteins. It contains 2-3% caffine, 3-5% tannins, 13% proteins, 10-15% fixed oils. In the seeds, Caffeine is present as a salt of chlorogenic acid. Also it contains oil and wax.

The carbohydrate content of green and roasted coffee was identified and measured. Green coffee contains about 6-7% of surose as soluble sugars and low amount of glucose. The soluble sugars of roasted coffee were sucrose, fructose, and glucose.



Caffeine

THERAPEUTIC EFFICACY

Coffee has the following therapeutic uses

1. Coffee is rich in antioxidants, which help combat oxidative strees and reduce inflammation in the body.
2. Regular coffee consumption has been linked to improve cognitive function, including better memory, attention, and reaction times.
3. Moderate coffee intake has been associated with a lower risk of heart diseases.
4. The antioxidants and anti-inflammatory compounds in coffee may help improve heart health.
5. Coffee can boost metabolism and aid in weight management.

7. ROSE

Rosa species commonly known as rose are among the most popular and widely used medicines plants all over the world. They are originated from the middle east but are cultivated all over the world.

SYNONYMS

Rosa x damascene.

BIOLOGICAL SOURCE

The Damask rose is a deciduous shrub that can grow up to 2.2 meters (7 feet) tall. It has densely armed stems with stout, curved prickles and stiff bristles. The leaves are pinnate with five leaflets.

The flowers are typically light to moderate pink to light red and grow in clusters. They are know for their strong, sweet fragrance.

FAMILY

Rosaceae.

Rose (Rosa damascena) petals powder.

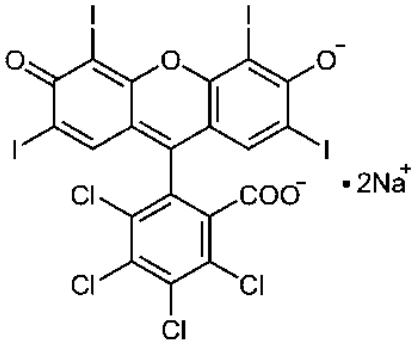
CHEMICAL CONSTITUENTS

Roses, particularly species contain a variety of chemical constituents that contribute to their medicinal and aromatic properties.

Here are some of the components.

1. Essential oil.
2. Flavonoids.
3. Tannins.
4. Terpenes.
5. Organic Acids.
6. Vitamins.

These constituents are responsible for the therapeutic properties of roses, including their antioxidant, anti-inflammatory, and antimicrobial effects.



THERAPEUTIC EFFICACY

The therapeutic uses of rose powder are:

1. It can also be used to promote healthy hair growth and improve the overall health of the scalp.
2. Rose powder has anti-inflammatory properties that can help reduce pain and inflammation, similar to the effects of medications like aspirin or ibuprofen.
3. Rose powder can aid in digestion by balancing the digestive fire or agin, which is crucial for proper digestion and metabolism.

8. MULTANI MITTI

Multani mitti, also know as Fuller's earth, is a mineral-rich clay that originates from multani in modern-day Pakistan. It's renowned for its numerous benefits for skin and hair care.

SYNONYMS

Floridin, and Multani mitti.

BIOLOGICAL SOURCE

Multani mitti is a type of clay composed mainly of hydrated aluminum silicates, magnesium chloride, and calcium bentonite.

CHEMICAL CONSTITUENTS

Fueller's earth has the following approximate composition Sio2 (55%); Al2O3 (6%); CaO (3.5%);

MgO (2.0%); Fe2O3 (6%); H2O (10%) representing montmorillonite 50% and silica 18%.

THERAPEUTIC EFFICACY

The therapeutic uses of multani mitti powder are:

1. Multani mitti is highly effective in absorbing excess oil, dirt, and impurities from the skin, making it an excellengt deep cleanser.
2. Regular use of multanin mitti can help in evening out skin tone and brightening the complexion by removing dead skin cells and promoting new cell growth.
3. It has natural cooling properties that can soonthe sunburn, skin rashes, and other forms of skin irritation.
4. It is particularly beneficial for oily skin as it helps in controlling excess sebum production, there by reducing the chances of acne and other skin issues.
5. The minerals in multani mitti, such as magnesium and calcium, have anti-inflammatory properties that can help reduce redness and irritation.

9. BESAN

Besan powder, also know as gram flour, is a fine, nutty-flavored powder made. From ground chickpeas, specifically spilt brown chickpeas or chana dal. It is a staole ingredient in many South Asian and Middle cuisines.

SYNONYMS

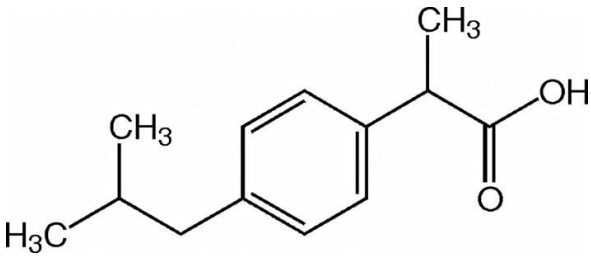
Gram flour, Chickpea flour, and Chana dal flour.

BIOLOGICAL SOURCE

Besan, it is used in a whole host of ways, from making flatbreads to fritters. It is available in very fine and slightly coarse textures. The use of the flour also often depends on its texture. It is very similar to Chickpea flour and offers similar flexibility.

CHEMICAL CONSTITUENTS

It is rich in various nutrients and chemical constituents. Protein approximately 20 grams per cup it a high protein flour, Carbohydrates around 53 grams per cup 10 grams of dietary fiber and 10 grams of sugar, Fat about 6 grams per cup, mostly polyunsaturated and monounsaturated fats, Folate (Vitamin B9) Provides 101% per cup, Thiamine (Vitamin B1) Essential for energy metabolism.



THERAPEUTIC EFFICACY

Besan has the following therapeutic uses

1. Gram flour has a low glycemic index, which helps in managing blood sugar levels.
2. The high fiber content in gram flour helps in lowering cholesterol levels, which can reduces the risk of heart disease.
3. The fiber in gram flour supports healthy digestion and can help prevent constipation.
4. Gram flour contains antioxidants that protect the body from oxidative strees and may reduce the risk of chronic disease.

Traditionally, gram flour is used in skincare routines to exfoliate and cleanse the skin.

IV. PREPARATION METHOD

Materials Required (100 grams)

Neem powder 10 grams
Tulasi powder 10 grams
Turmeric powder 10 grams (use sparingly to avoid staining)
Beet root powder 10 grams
Rose powder 10 grams
Flax seeds powder 10 grams
Multani Mitti powder 10 grams
Sandal wood powder 10 grams
Coffee powder 10 grams
Besan powder 10 grams

Steps To Make Herbal Tan Face Pack

- **Step 1:** All the required herbal powders for the face pack preparation were accurately weighed individually by using digital balance. The quantity and listed in above.
- **Step 2:** The herbal drugs such as Neem, Turmeric powder, Tulsi powder, sandal wood powder and Beet Root powder were transferred to mortar and pestle and triturated.
- **Step 3:** Herbal drugs such as Rose powder, Multani Mitti, Flax seeds, Coffee powder and Besan powder were triturated in a separate mortar and pestle to form a uniform fine mixture.
- **Step 4:** Previously prepare mixture of herbal powders was transferred to the mixture of fine powders and triturated to obtained uniform drug powder of face pack.
- **Step 5:** The powders were passed through sieve no #44.

- **Step 6:** The prepared face pack powder was packed into a well pack glass container and used for further studies.

Figure 1: Herbal Powders.

Figure-2 Mixture of Powders.

Figure-3 Preparation of Herbal powders.

Table 1: Face pack formula.
(All ingredients were used in powder form)

Sr. no	Material		Quality (for 100 gm)
	Common name	Scientific name	
1	Neem leaves	Azadirachta indica	10
2	Tulasi laves	Ocimum tenuiflorum	10
3	Turmeric leaves	Curcuma long	10
4	Beet root	Beta vulgaris rubra	10
5	Rose petals	Rosa indica	10
6	Multani mitti	Fuller's earth	10
7	Flax seeds	Linum usitatissimum	10
8	Coffee beans	Coffea arabica	10
9	Besan powder	Cicer arietinum Locim	10

PROCEDURE OF FACE PACK APPLICATION

- **Step 1:** Take prepare face pack powder in a bowl as per the requirement and add rose water or curd (For extra hydration)
- **Step 2:** Mix well to form a paste with optimum thickness.
- **Step 3:** It should be applied evenly on the face pack with the help of a brush. Cover the acne and blemishes spots.
- **Step 4:** Keep as it is for complete dryness for 20-25 minutes. Then it should be washed with cold water.
- For extra hydration add a few drops of honey or rose water or curd
- Your face pack is ready.

V. EVOLUATION TEST FOR HERBAL FACE PACK

Physical Properties

- ✓ Ph – (powder of hydrogen) It specifies how acidic or basic a liquid liquid solution is.
- ✓ The viscosity should be appropriate for easy application.
- ✓ The face pack should wash off easily without leaving any residue.
- ✓ The face pack should spread easily on the skin.

Chemical Properties

- ✓ The face pack should be stable over time.
- ✓ The face pack should have a reasonable shelf life.

Biological Properties

- ✓ The face pack should have antioxidant properties to protect the skin from damage.
- ✓ The face pack should have antimicrobial properties to prevent infections.
- ✓ The face pack should have anti-inflammatory properties to reduce redness and irritation.
- ✓ The face pack should have moisturizing properties to keep the skin hydrated.
- ✓ The face pack should have skin lightening properties to reduce pigmentation.

1) PH

PH is the negative logarithm of hydrogen ion concentration. The scale of pH is from 0 to 14. PH 7 is neutral. Solution pH below 7 is considered as acidic and above 7 is basic in nature. PH of a solution is determined b pH meter.

Figure 4: PH Test for buffer solution.

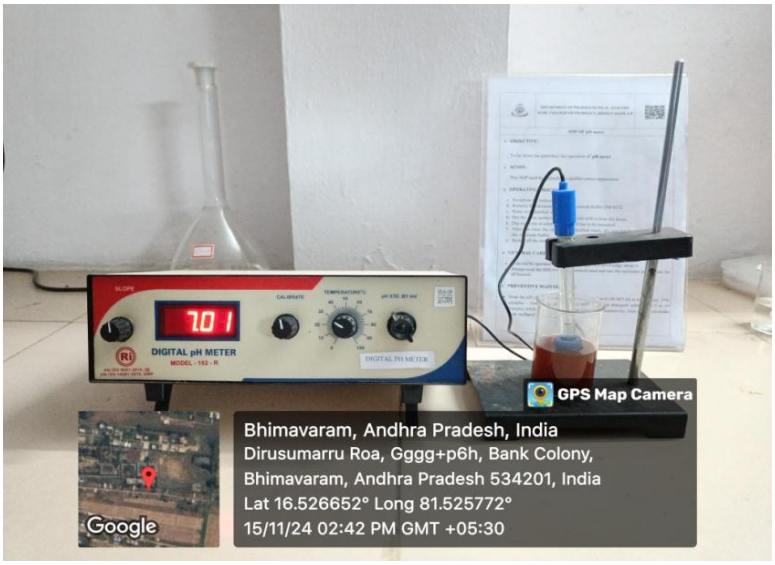


Figure 5: PH Test for sample solution.

LIMIT TESTS

Mayer's Test for Alkaloids

Alkaloids are nitrogen-containing organic compounds found in many plants, some of which may have skin lightening properties. The Mayer's test is a simple qualitative test to detect the presence of alkaloids. If alkaloids are present in the substance, they will react with the mayers reagent to form a white precipitate or cream colored precipitate compound. The color of the precipitate or the colored compound can indicate the presence of specific alkaloids.

Figure 6: Mayer's Test with sample solution.

Hanger's Test

Hanger's test is a chemical test used to identify alkaloids, a class of organic compounds often found in plants. While a hanger's test can be a preliminary step to check for skin sensitivity, it's crucial to perform a patch test on a small area of skin before applying an new product, including homemade face packs, to your entire face. Wash your face with a gentle cleanser to removedrt and oil.

Figure 7: Hanger's Test with sample solution.

Rheological Evaluation

Ash value: Ash value is generally the residues remaining after complete incineration of the powdered sample. It is used identity or purity of the drug. Principally a very high ash value is representative of adulteration, contamination, substitution during preparation of the product. Ash values can be determined as follows.[5,12,23]

i. **Total Ash value:** Total ash value is used for determining low grade, exhausted products and also important for identifying excess of sandy, earthy matter with drug. About 2-4 gm the powdered sample was placed in a previously ignited and tarred crucible. The material was evenly spread on the crucible and ignited by gradually increasing the heat until it a white powder i.e. free from carbon was

obtained. Followed by cooling the sample in desiccator and weight of sample was recorded. Percentage total ash was calculated with reference to the air-dried sample.

ii. **Acid insoluble Ash value:** It is used to determine the earthy matter. Add 25 ml of hydrochloric acid to the crucible containing total ash and covered it with watch glass. The mixture was boiled gently for 5 minutes. Further watch glass was rinsed with 5 ml of hot water and added into the crucible. The insoluble matter was collected on an ash-less filter paper and washed with hot water until it became neutral. The filter paper containing the insoluble matter was transferred to the original crucible, dried on a hot plate and ignited to constant weight and subjected for cooling in desiccator for 30 minutes followed by weighing the sample. Percentage of acid insoluble ash was calculated in reference to air-dried sample.

iii. **Water soluble ash value:** It is the difference in weight between total ash and residue after treatment of total ash with water. It is used to determine whether the material is exhausted by water or not. To the crucible containing total ash, 25 ml water was added and boiled for 5 minutes. The insoluble matter was collected on an ash-less filter paper. Followed by washing with hot water and subjected for ignition for 15 minutes at temperature not exceeding 450º C. the sample was cooled, weighed and percentage of water soluble ash was calculated in reference to air dried sample.

IRRITANCY TEST

The prepared face pack was applied to the previously marked area of a 1 square cm was marked on the left-hand dorsal surface and time was recorded. Skin was then observed for irritancy, erythema and edema (if any), for regular intervals up to 24 hrs.[5]

WASHABILITY

Formulation was evaluated for its ability to get washed off. Face pack was applied on the skin and then ease and extent of washing with normal tap water were checked manually.[5]

Organoleptic Evaluation

The organoleptic parameters include its nature, color, odor, feel and consistency which were evaluated manually for its physical properties.

Physical Evaluation

The particle size was tested by microscopy method. The flow property of the dried powder of combined form was evaluated by performing Angle of Repose by funnel method, bulk density and tapped density by Tapping Method.

Stability studies

Stability testing of prepared formulation was conducted for formulation F2 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, 35ºC and 40ºC and were evaluated for physical parameters like Color, Odor, pH, Consistency and feel.

VII. HERBAL FACE PACK APPLICATIONS

Most of the chemical-based or synthetic (may include preservatives, artificial fragrances, and colors).

Herbal Face pack are natural and plant-based (powders, extracts, oils, etc..) provides holistic benefits like cleansing, brightening, and nourishing, often without side effects. Generally safe for all skin types, especially sensitive skin, when properly chosen.

Environmentally friendly and biodegradable. It is cost effective as many ingredients can be prepared at home.

1. Cleanse your face pack thoroughly.
2. Apply the paste evenly on your face and neck.
3. Leave it on for 15-20 minutes or until it dries.
4. Rinse off with lukewarm water while gently massaging in circular motions.
5. Pat dry and apply a light moisturizer.

Use this face pack 1-2 times a week for best results. It helps in deep cleansing, brightening, and rejuvenating your skin.

VIII. RESULTS

The following results of all evaluation parameters performed to ensure supremacy of prepared face pack.

Organoleptic Evaluation

Herbal face pack was prepared and evaluated for various organoleptic parameters and its observations are show in the table 2.

Table 2: Organoleptic Evaluation.

Sr. no	Parameters	Observations
1.	Appearance	Fine powder
2.	Color	Brown colour
3.	Odour	Pleasant
4.	Texture	Fine
5.	Smoothness	smooth

Irritation Test

Formulation not showed any signs of rashes, redness, irritation and swelling when it was subjected to irritancy test throughout the test.

Table 3: Irritancy Test.

Sr. no.	Parameters	Observations
1.	Irritant	No irritation
2.	Erythema	No irritation
3.	Edema	No irritation

Washability Test

The face pack can be easily washed off from skin with normal water.

Table 4: Washbality Test.

Sr. no.	Parameters	Observations
1.	Washability	Easily washable

Physicochemical Parameters

Formulation are shown in the table 5. Moisture content of face pack was found to be 6.3 which near to pH of skin and so the formulation can be considered as safe to be used on skin.

Table 5: Rheological Evaluation.

Sr. No.	Parameters	Observations
1.	pH	6
2.	Moisture	11.53%
3.	Ash value 1. Acid insoluble ash 2. Water soluble ash 3. Total ash	 0.815% 1.98% 2.7955

Stability Test

The stability studies showed a change in pH of formulation was stored at 40oC and no changes were observed at room temperature and at 35oC there was no change in color and odor at other mentioned conditions of stability.

Table 6: Stability Test.

Sr. no.	Parameter	Room temperature	40Oc
1.	Color	No change	No change
2.	Odour	No change	No change
3.	PH	6.92+- 0.12	6.87+- 0.13
4.	Texture	Fine	Fine
5.	Smoothness	Smooth	Smooth

VIII. PRECAUTIONS TO TAKE WHILE APPLYING THIS PACK

1. The face pack should not be left on face more than 20–25 min. Keeping for very long time may result in the formation of wrinkles, sagging of skin, and enlargement of open pores.
2. Apply face pack once in a week. Do not try to peel or scratch the dried face pack. This may harm underlying skin.
3. Spray water on face before removing dried face pack. After removing the mask, roll an ice cube on skin. This helps to close open pores and tightens skin. It also tones and sooths the skin.
4. Do not scrub face vigorously. This may result in eruption of pimples and dark spots. Stay away from heat when you have applied face pack.
5. Avoid applying face pack near "eye zone." The skin around eye is very delicate. The process of removing face pack may damage skin around eyes.

XI. CONCLUSION

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. Herbal face packs are used to stimulate blood circulation, rejuvenate the muscles and help to maintain the elasticity of the skin and emove dirt from skin pores. It is an our good attempt to formulate the herbal face pack containing natural herbal ingredients such as multani mitti, turmeric, sandal wood, saffron, milk powder, rice flour, orange peel and banana peel. After evaluation, we found good properties for the face packs, free from skin irritation and maintained its consistency even after stability storage conditions. It has been revealed that herbal face pack having enough potential to give efficient glowing effect on skin. The overall study is useful to substantiate product claims due its useful benefits on the human beings. Herbal ingredients opened the way to formulate cosmetics without any harmful effect. Herbal face packs are considered as sustaining and productive way to advance the appearance of skin. The face pack was prepared with the aim to promote nourishment, to enhance the appearance and aesthetic feel of skin. It was prepared by combining powders of various natural plants and herbs. Presence of natural agents in formulation does not directly alter the normal physiological properties of skin and yet tends to be effective. These agents also tend to cause minimal side effects unlike synthetic face pack containing chemical agents which may be harmful upon application. The prepared face pack can also be used as face scrub to remove dead and fleecy skin. From the observation of all evaluation parameters it can be concluded that the prepared face pack based on home remedies is safe to use on skin.

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