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Formulation And Evaluation of Herbal Face Pack

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Abstract

The ideal this work is to formulate and estimate a polyherbal face pack for ornamental purpose from herbal constituents. Multani Miti, Manjistha, Haridra, Rakta Chandan and Lodha were carried from the original request and were dried, pulverized, also passed through sieve no 100, mixed geometrically and estimated for its organoleptic and Physico- chemical, general greasepaint, atomic characters and chemical evaluation. The dried greasepaint of combined form had passable inflow property which is suitable for a face pack. flyspeck size of the greasepaint was set up to be 20-25 µm. The atomic characters of dried greasepaint of combined form were noted Herbal face packs or masks are used to stimulate blood rotation, rejuvenates the muscles and help to maintain the pliantness of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their nontoxic nature, reduce the antipathetic responses and time- tested utility of numerous constituents. therefore, in the present work, we set up good parcels for the face packs and farther optimization studies are needed on this study to find the useful benefits of face packs on mortal use as ornamental product. Everybody wants to get a fair and fascinating skin. Now a day, acne, black heads, pustules are common among persons who suffer from it. According to Ayurveda, skin problems are typically due to contamination in blood. Herbal face packs are used to pretend blood rotation, rejuvenate the muscles and help to maintain the pliantness of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their nontoxic nature, reduce the antipathetic responses and time- tested utility of numerous constituents.

Keywords :- Face Pack, Herbal face pack, Cosmetic Formulation, Skin care, Herbal Extract, Ayurvedic Cosmetic.

Introduction

People have been exercising shops for healthy, radiant, and beautiful skin since the launch of time. Cosmetics are goods that are used to maintain aesthetic appeal and to make one look beautiful. Cosmetics are readily available particulars intended to enhance one's look by conditioning including analogous washing, beautifying, and enhancing attractiveness. gravies have been employed for sanctification, beautifying, and managing people and goods since ancient times. The largest portion of the body that reveals someone's health is their face skin. Ancient ladies were extremely concerned with their appearance and taken special

care of her unique skin types. Indeed moment, multitudinous people, especially in pastoral and hilly areas, prefer natural antidotes analogous organic extracts for a variety of cosmetic products. Everybody wants to be had nice skin that is fair. Acne, black heads, papules, and dark circles are now frequent among immature people and those who have it. According to Ayurveda, blood impurity the herbal paste used as a facial treatment in Ayurveda is known as" Mukha Lepa." This herbal paste is applied to the face to cure achromatism, scars, markings, and acne. Natural face packs are more affordable and offer no negative goods in the quest for naturally pale skin. Facial mask is the silky cream that is applied to the face. These treatments are applied to the face as pastes or liquids and also left to dry and harden into a film, which has the effect of tightening, nourishing, and drawing the skin. They are generally kept on the skin from ten to fifteen beats so that all the water can evaporate. As a result, the antedating film contracts and hardens, making it simple to remove. While a colloidal and adsorbed tones employed in these treatments remove grease and oil painting oil from the skin on the face, the warming and tightening impact created by operation of a face pack creates the stimulating sense of a revitalized face. Skin impurities and previously deposited dirt are also barred when the placed face pack is subsequently removed. Everybody wants to get fair and fascinating skin. Now a day, Acne, black head, papules, dark circle are common among youths and person who suffers from it. According to Ayurveda, Skin problems are generally due to impurities in blood. Accumulated venoms in the blood during infelicitous food and life are causing skin related conditions. various gravies, medicines are described in Ayurveda for blood sanctification. gravies like Manjistha, Lodhra, Chandana, Haridra etc. are good illustration of blood cleanser. The herbal paste which is applied on face to treat acne, pustule, scars, marks and colors are known as “ mukha lepa ” in ayurveda. The process of smearing this herbal mix on face is known as “ mukha lepana ”. This beauty remedy is popular as facial. The smooth cream which is used for facial operation is “ face pack ”. A good herbal face pack must supply necessary nutrients to skin. It should pierce the subcutaneous apkins in order to deliver the demanded nutrients. Different types of skin need different types of herbal face packs. The face packs which are mentioned in ayurveda help women to get relieve of wrinkles, dark circles, papules and acne. Herbal face packs increase the fairness and smoothness of skin. We can decide the maximum benefits of herbal face packs by using them according to our skin type. These face packs increase skin radiance and are swish ayurveda treatment to increase.

History

Since ancient times, people have known about cinnamon. Although it was brought to Egyptians so beforehand as 2000 BC, people who claimed that it began in China mistook it for Cinnamomum cassia, a veritably affiliated species. Cinnamon has been so largely valued in ancient societies that it was allowed to be a gift befitting of lords or indeed gods; a beautiful necrology attests to the donation of cinnamon with cassia to the Apollo tabernacle in Miletus. In order to maintain their monopoly as suppliers, those in the spice trade in the Mediterranean region for centuries kept its source a trade secret. India, Sri Lanka, Bangladesh, and Myanmar are the native countries of Cinnamomum verum, which is known as" genuine cinnamon" in Latin. China is the original home of cassia, or cinnamon mum. Native to Southeast Asian nations with warm temperatures, including Vietnam(" Saigon cinnamon"), Indonesia, and others, affiliated species are all collected and vended as cinnamon in the contemporary age. Cinnamon was employed to embalm corpses in ancient Egypt. Cinnamon and cassia were employed in Ancient Egyptian fashions in typhi, an sweet used in burning, starting in the Ptolemaic Kingdom. Hellenistic lords sometimes presented cassia and cinnamon as gifts to tabernacles. The term" kasa" is first encountered in Greek in a lyric written with Sappho in the seventh century BC. Herodotus claimed that winged serpents defended the cinnamon, cassia, incense, myrrh, and labdanum crops in Arabia. Arabia was cited as the origin of cinnamon by Herodotus, Aristotle, and other pens. According to their accounts, enormous" cinnamon catcalls" collected cinnamon sticks from an unidentified country where cinnamon trees thrived and used them to make their nests.

BENEFITS OF APPLYING FACEPACK :-

1. Nourishes the skin. Fruit face packs supply essential nutrients to skin

2. Helps to reduce, acne, papule, scars and marks depending on its herbal constituents.

3. Face packs generally remove dead cells of skin.

4. These face masks give a soothing and comforting effect on skin.

5. They help to restore the lost shine and gleam of skin in short span of time.

6. Regular use of natural face masks bring gleam to skin, ameliorate skin texture and complexion.

7. The dangerous goods of pollution and harsh climates can be effectively combated with judicial use of face packs.

8. They help to help unseasonable aging of skin.

9. conformation of wrinkles, fine lines and sagging of skin can be effectively controlled by using natural face packs.

10. Natural face packs make the skin look youthful and healthy.

Face packs which are recommended for acne, papule, black heads generally control the over discharge of sebum from sebaceous glands and remove the dangerous bacteria inside acne lesion. The scars and marks of skin can be reduced by adding fine greasepaint of sandal, rose petals an orange lentil with acne face pack.

IDEAL PROPERTIES OF FACE PACK : -

1. It should be non- irritating and non-toxic.

2. It should be stable both physically and chemically.

3. It should be free from gritty particles.

4. It should have pleasant odour.

5. They should be capable of producing significant cleansing of the skin.

6. They should produce a sensation of tightening of the skin after application.

7. They should form a smooth paste

PRECAUTIONS TO BE TAKEN WHILE APPLYING FACE PACK: -

Before Applying a Face Pack

1. Choose a face pack suitable for your skin type.

2. Consult a natural therapist or skin expert if needed.

Applying a Face Pack

1. Apply the face pack once a week.

2. Leave it on for 15-20 minutes. Avoid exceeding this time to prevent wrinkles, sagging skin, and enlarged pores.

3. Avoid applying face packs near the delicate eye area.

Removing a Face Pack

1. Spray room temperature water on your face before removing the dried face pack.

2. Gently remove the face pack without peeling or scratching.

3. Roll an ice cube on your facial skin to close pores, tighten skin, and soothe your skin.

Aftercare

1. Avoid scrubbing your face vigorously to prevent pimple eruptions and dark spots.

2. Stay away from heat after applying a face pack.

MATERIAL AND METHODS: -

Present exploration composition deals with the expression and evaluation of herbal face pack for glowing skin by using natural component i.e., Multani Miti, turmeric, sandalwood, saffron, milk greasepaint, rice flour and orange peel. They were bought from original request in the form of dried greasepaint. The greasepaint of banana peel was prepared by shade drying commercially. All constituents authenticated at Botany department of Aditya institute of medicinal, blob. The details of the natural component used for the expression of herbal face pack are mentioned below

- **INGREDIENTS OF FORMULATION: -**

1) **Multani Miti**: -

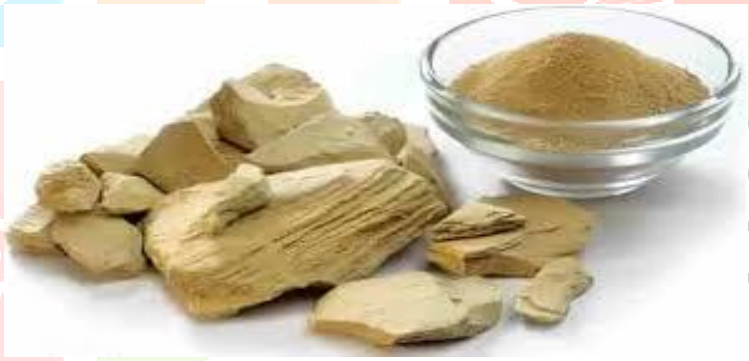

Figure 1:- Multani mitti

Multani Miti 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 Miti is rich magnesium chloride.

2) Turmeric: -

Figure 2: - Turmeric

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. Turmeric has been shown to anti-inflammatory, antimicrobial, antioxidant properties. It mainly uses for rejuvenating the skin. It is best source of blood purifier. It is effective in treatment of acne due to its antimicrobial, antioxidant and anti-inflammatory property. It also reduces the oil secretion by sebaceous glands. 3) Sandal wood: - Figure 3: - Sandal wood www.ijcrt.org © 2023 IJCRT | Volume 11, Issue 5 May 2023 | ISSN: 2320-2882 IJCRT23A5443 International Journal of Creative Research Thoughts (IJCRT) www.ijcrt.org M234 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

3) Sandal wood: -

Figure 3: - Sandal wood

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.

4) Rice flour: -

Figure 4: - Rice flour

Rice flour can be applied to cure some forms of skin ailments. In Indian subcontinent, rice water is duly prescribed by Ayurvedic practitioners as in undigested form. It aids the growth of useful bacteria for normal bowel movements an effective ointment to cool off inflamed skin surface.

5) Neem powder: -

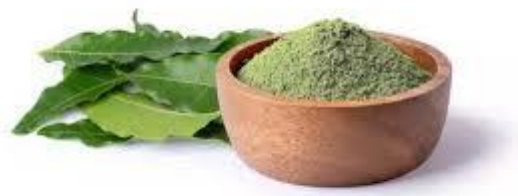

Figure 5: - neem powder

Neem powder is an excellent ingredient to include in a **face pack** due to its numerous benefits for the skin. Its antibacterial, antifungal, anti-inflammatory, and antioxidant properties make it effective in treating a variety of skin issues, including acne, pimples, irritation, and blemishes.

6) Rose powder: -

Figure 6: - rose powder

Rose powder, made from dried rose petals, offers various skin benefits, including antioxidant protection, gentle exfoliation, and soothing properties, promoting a radiant and healthy complexion. It can help reduce blemishes, even skin tone, and even address issues like acne and inflammation.

7) Hibiscus powder: -

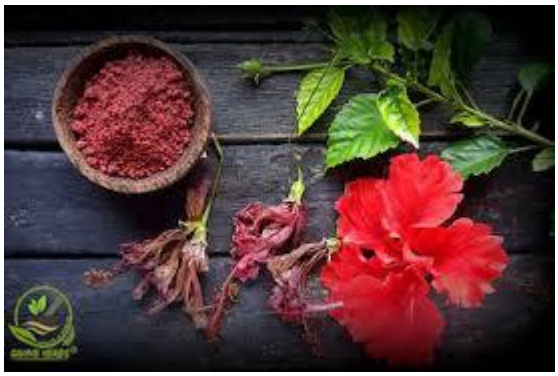

Figure 7: - Hibiscus powder

The natural acids in hibiscus gently exfoliate, promoting a smoother, more radiant complexion. Anti-Aging Properties: Packed with antioxidants, hibiscus helps combat free radicals, reducing the appearance of fine lines and wrinkles.

8) Fenugreek powder: -

Figure 8: - fenugreek powder

Fenugreek powder, rich in antioxidants and vitamin C, offers various skin benefits, including reducing signs of aging, promoting a brighter complexion, and moisturizing the skin. It can also help with acne, soothe irritated skin, and act as a natural cleanser and exfoliant.

METHODS OF PREPERATION: -

The powdered dried natural ingredients were sieved using #40 mesh, weighed accurately and mixed geometrically for uniform formulation mentioned in Table 1. The prepared face pack was then stored in an airtight container for evaluation of various parameter.

Sr no	Constitution	Scientific name	Percentage
1	Multani Miti	Calcium bentonite	25
2	Turmeric	Curcuma longa	15
3	Sandalwood	Santalum album	20
4	Rice flour	Oryza sativa	20
5	Neem powder	Azadirachta indica	5
6	Rose powder	Rosa centifolia	5
7	Hibiscus powder	Hibiscus sabdariffa	5
8	Fenugreek powder	Trigonella frenum-graecum	5

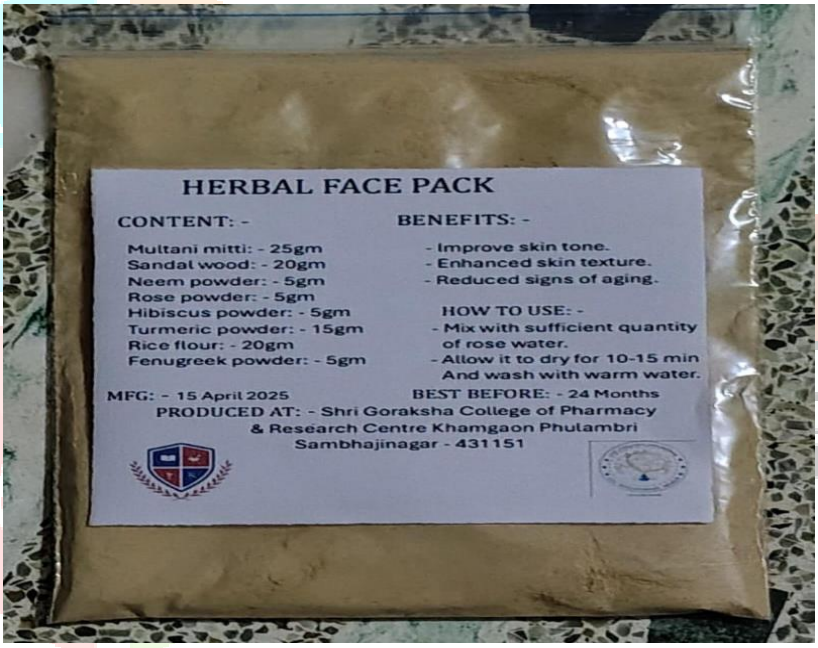

Figure 9: - Prepare face pack

PROCEDURE FOR APPLICATION OF FACE PACK: -

The pack should be applied daily on wet face, forming a paste of it in water with optimum consistence. It should be applied unevenly on the face with the help of a encounter. It should be left for 15 twinkles for complete drying. also it should be removed with the help of a wet sponger. Procedure for Development of Formulation of Face Pack Application- 1. colorful phrasings were prepared according to table. 2. The set face pack greasepaint in a coliseum as per demand, add water(rose water) to mix it well up to forming a smooth paste. 3. Apply this paste over a skin which covers acne, papules and blackheads. 4. Keep it for 30-40 Min and also wash the face with cold water. Determination of humidity Content- Weigh about 2 gm of powdered face pack into a counted flat and thin demitasse dish. Sot it in Hot Air Oven at 100 °C- 105 °C, until two successive importing do n't differ by further than 0.5 mg. Cool in desiccator and weigh the loss in weight is generally recorded as humidity. Total Ash Place about 2 g of ground air dried material, directly

counted, in a preliminarily burned and tared gauntlet (generally of platinum or silica). Spread the material in an roaster subcaste and enkindle it by gradationally adding the heat to 500- 600 °C until it's white, indicating the absence of carbon. Cool in a desiccator and weigh.However, cool the gauntlet and bedew the residue with about 2 ml of water or a impregnated result of ammonium nitrate R, If carbon-free ash can not be attained in this manner. Sot on a water- bath, also on a hot- plate and enkindle to constant weigh. Allow the residue to cool in a suitable desiccator for 30 min announcement also weigh without detention. Calculate the content of total ash in mg per g of air- dried material

EVALUATION OF FACE PACK : -

1) **Morphological evaluation**- It refers to the evaluation of the herbal face pack by its color, odor, appearance, texture etc. The external characters of the expression were examined grounded on the system described by Siddiqui et al.

2) **Physiochemical evaluation**- Physicochemical parameters were determined, including the determination of extractive value, ash value, pH and humidity content.

3) **Physical evaluation**- The flyspeck size was tested by microscopy system. The inflow property of the dried greasepaint of combined form was estimated by performing Angle of Repose by channel system, bulk viscosity and tapped viscosity by Tapping Method.

4) **Phytochemical evaluation**- The waterless excerpt of the herbal face pack was estimated for the presence of different phytoconstituents as per the standard procedures.

5) **Irritancy test**- Mark an area(1sq. cm) on the left- hand rearward face. Definite amounts of set face packs were applied to the specified area and time was noted. Irritancy, erythematic, edema, was checked if any for regular intervals up to 24 hrs. and reported.

6) **Stability studies Stability testing of** set expression was conducted by storing at different temperature conditions for the period of one month. The packed glass vials of expression stored at different temperature conditions like, room temperature and 400C and were estimated for physical parameters like color, Oduor, pH, thickness and feel.

Acid – Insoluble Ash

To the gauntlet containing the total ash, add 25 ml of hydrochloric acid(70g/ l) TS, cover with a watch glass and boil gently for 5 min. wash the adhesive with 5 ml of hot water and add this liquid to the gauntlet . Collect the undoable matter on an ash less sludge- paper and wash with hot water until the filtrate is natural. Transfer the sludge paper containing the undoable matter to the original gauntlet , dry on a hotplate and enkindle ton constant weight. Allow the residue to cool in suitable desiccators for 30 min and also weigh without detention. Calculate the content of acid undoable of acid- undoable ash in mg per g of air- dried material

Water- Soluble Ash

To the gauntlet containing the total ash, add 25 ml of water and boil for 5 min. Collect the undoable matter in a sintered glass gauntlet or on an ash less sludge- paper. Wash with hot water and enkindle in a gauntlet for 15 min at a temperature not exceeding 450 °C. Abate the weight of this residue in mg from the weight of total ash. Calculate the content of water-answerable of water ash in mg per g of air- dried material

Particle Size

Particle size is a parameter, which affect colorful parcels like spread capability, grit, etc., Particle size was determined by raising system by using I.P. Standard sieves by mechanical shaking for 10 min.

Angle of Repose

It defined as the maximum angle possible in between the face of pile of greasepaint to the vertical inflow

Open- Ended Cylinder

system, it needed quantum of dried greasepaint is placed in a cylinder tube open at both ends is placed on a vertical face. also the channel should be raised to form a mound. The height and compass of mound is noted and recorded. For the below system, the angle of repose(¢) can be calculated by using the formula. ¢ = tan- 1(h/ r) where, ¢- Angle of repose, h- Height of the mound, r- Compass of the base.

Bulk viscosity

Bulk viscosity is the rate between the given mass of a greasepaint and its bulk volume. needed quantum of the greasepaint is dried and filled in a 50 ml measuring cylinder up to 50 ml mark. also the cylinder is dropped onto a hard wood face from a height of 1 inch at 2 sec intervals. The volume of the greasepaint is measured. also, the greasepaint is counted. This is repeated to get average values. The Bulk Density is calculated By using the below given formula. Bulk viscosity = Volume/ Mass

Tapped Density

Tapped viscosity is an increased bulk viscosity attained after mechanically tapping a vessel containing the greasepaint sample. After observing the original greasepaint volume or mass, the measuring cylinder or vessel is mechanically tapped for 1 min and volume, or mass readings are taken until little farther volume or mass change was observed. It was expressed in grams per boxy centimeter(g/ cm3).

Spread capability

Spread capability was determined by an outfit suggested by fabricated in- house. The outfit consists of a rustic block with a fixed glass slide and portable glass slide with one end tied to weight visage rolled on the pulley, which was in the vertical position with fixed slide. The spread capability of the formulated gel was measured grounded on ‘ Slip and Drag’ characteristics of gel. An excess of gel(about 2 g) under study was placed on this ground slide. The gel was also squeezed between two slides. One kg weight was placed on the top of the two slides for 5 min to excel air and to give a invariant film of the gel between the slides. redundant of the gel was scrapped off from the edges. The top plate was also subordinated to pull off 50 gm. Mix with the help of string attached to the hook and the time(T, in seconds) needed by the top slide to move 7.5 cm be noted. A shorter interval indicated better spread capability.

Microbial Assay

The antibacterial conditioning of different phrasings were determined agar well prolixity system. In this system, nutrient agar plates were planted with 0.2 ml of 24 h broth culture of Escherichia coli and Pseudomonas aeruginosa a causative organism for acne vulgaris. The agar plates were allowed to solidify. A sterile 8 mm borer was used to cut wells of equidistance in each of the plates. 0.5 ml of phrasings, herbal excerpts were introduced into the wells at aimlessly. The plates were incubated at 37 °C for 24 hours. The antibacterial conditioning were estimated the zones of inhibition(in mm)

Washability

This is the common method for checking the washability of the formulation were applied on the skin and then ease and extent of washing with water were checked manually by using 1 liter of water is used to remove all content of the formulation were applied on the surface

RESULT AND DISCUSSION: -

1) Morphological evaluation: - Herbal face pack was evaluated for morphological parameters. The color of formulation was pale yellow. The Oduor of prepared formulations was pleasant and good acceptable which is desirable to cosmetic formulations. Texture and smoothness were acceptable as per requirement of cosmetic formulations.

Sr no	Parameter	Observation
1	Color	Pale yellow
2	Oduor	Pleasant
3	Appearance	Smooth, fine
4	Texture	Fine

5	Smoothness	Smooth

2) Physiochemical evaluation: -

Herbal face pack was evaluated for physicochemical parameters. The pH of formulation was found close to neutral. The ash content and moisture content were within limit. The particle size of formulations was found in the range of 24.3±2.5µm

Sr no.	Parameter	Observation
1	PH	6.91
2	Loss on drying	208
3	Ash content	89+-0.352
4	Partical size	24.3+-2.5

3) Physical evaluation: -

Herbal face pack was evaluated for physical parameters (powder property). Rheological findings justified the flow (powder) properties of the herbal face pack. It was found to be a free-flowing and non-sticky in nature.

Sr no.	Parameter	Observation
1	Tapped density	1.428 gm|ml
2	Bulk density	1.08 gm|ml
3	Angle of repose	03.611
4	Hauser’s ratio	1.322
5	Carr's index	22%

4) Irritancy test: -

The results of irritancy test. The formulation showed absence of irritation, redness and swelling during irritancy studies. This formulation has safe to use on skin.

Sr no.	Parameter	Observation
1	Irritation	No
2	Redness	No
3	Swelling	No

5)Stability studies: -

The results of stability. No change in color, Oduor, texture and smoothness was observed at mentioned conditions of stability except ph. The stability studies showed a slight change in pH of formulation at 400C.

Sr no.	Parameter	Room temp.	40 C
1	Colour	No change	No change
2	Oduor	No change	No change
3	Ph	6.91 ± 0.11	6.86 ± 0.12
4	Texture	Fine	Fine
5	Smoothness	Smooth	Smooth

Conclusion :

The development and evaluation of herbal face pack powders highlight the immense potential of natural ingredients in skincare. These formulations offer a safe, effective, and chemical-free alternative to conventional cosmetic products. Rich in antioxidants, vitamins, and bioactive compounds, herbal ingredients like neem, turmeric, sandalwood, multani mitti, and rose help improve skin texture, reduce acne, and impart a natural glow. With growing awareness and preference for natural products, herbal face packs stand as a promising solution for healthy and sustainable skincare.

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REFERENCE: -

1. Rani S, Hiremath R. Formulation & Evaluation of Poly-herbal Face wash gel. World J Pharm Sci 2015
2. Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. World J Pharm & Pharma Sci 2015
3. Ashawat MS, Banchhor M. Herbal Cosmetics Trends in skin care formulation. Pharmacogn Rev 2009
4. Kanlayavattanakul M, Lourith N, Therapeutic arents and herbs in topical application for acne treatment Int J Cosmet Sci 2011
5. Chanchal D, Swarnlata S. Herbal photoprotective formulations, and their evaluation. Open Nat Prod J 2009
6. Mithal BM, Saha RN. A Hand book of cosmetics 2nd edn. 2004.
7. Hwang JK, Shim JS, Gwon SH, Kwon YY, Oh HI et al. Novel use of Panduratin derivatives or extract of Kaempferia pandurata comprising the same. U.S. Patent 0065272A1, 2012.
8. Mieloch M, Witulska M. Evaluation of Skin Colouring Properties of Curcuma Longa Extract. Int. J Pharm Sci 2014
9. Bhat KV, Balasundaran M, Balagopalan M, Identification of Santalum album and Osyrislanceolata through morphological and biochemical characteristics and molecular markers to check adulteration.
10. Kokate CK, Purohit AP, Gokhale SB. Textbook of Pharmacognosy 49th ed. 2014.
11. Sinha N. K. Beauty and Skin Benefits of Milk Powder: Milk Powder Home Made Facial Mask Recipes.
12. Amarowicz, R., Estrella, I., Hernández, T., Robredo, S., Troszyñska, A., Kosiñska, A. and Pegg, R. B. (2010). Free radical-scavenging capacity, antioxidant activity, and phenolic composition of green lentil (Lens culinaris). Food chemistry, 121(3), pp. 705-711.
13. Anagnostopoulou, M. A., Kefalas, P., Papageorgiou, V. P., Assimopoulou, A. N. and Boskou, D. (2006). Radical scavenging activity of various extracts and fractions of sweet orange peel (Citrus sinensis). Food chemistry, 94(1), pp. 19-25.
14. Anandarajagopal, K., Sunilson, J. A. J., Ajaykumar, T. V., Ananth, R. and Kamal, S. (2013). In-vitro anti-inflammatory evaluation of crude Bombax ceiba extracts. European Journal of Medicinal Plants, 3(1), p. 99.
15. Anilkumar, V., Kalyani, R., Padmasri, B. and Prasanth, D. (2020). In-house preparation, development and evaluation of herbal cosmetics face pack using various natural powders. Journal of Drug Delivery and Therapeutics, 10(5), pp. 159-164.
16. Aslam, F., Rehman, K. U., Asghar, M. and Sarwar, M. (2009). Antibacterial activity of various phytoconstituents of Neem. Pak. J. Agri. Sci, 46(3), p. 209.

17. Bhutkar, M. K. and Shah, M. M. (2019). Formulation and Evolution of Herbal Antibacterial Face Pack. Journal of Emerging Technologies and Innovative Research, 6(5).

18. Gandhare, B., Soni, N. and Dhongade, H. J. (2010). In vitro antioxidant activity of Bombax ceiba. Int. J. Biomed. Res, 1(2), pp. 31-36.

19. Grace, X. F., Vijetha, R. J., Shanmuganathan, S. and Chamundeeswari, D. (2014). Preparation and evaluation of herbal face pack. Adv J Pharm Life Sci Res, 2(3), pp. 1- 6.

20. Helmja, K., Vaher, M., Püssa, T., Raudsepp, P. and Kaljurand, M. (2008). Evaluation of antioxidative capability of the tomato (Solanum lycopersicum) skin constituents by capillary electrophoresis and high performance liquid chromatography. Electrophoresis, 29(19), pp. 3980-3988.