

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

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**COURSE NAME : COSMETIC SCIENCE- BP809ET
B.PHARM IV YEAR / VIII SEM
UNIT III**

SUB TOPIC : CLASSIFICATION OF SUNSCREENS AND SPF - ROLE OF HERBS IN COSMETICS







Classification of Sunscreens: Overview

Physical (Mineral)



Zinc Oxide & Titanium Dioxide

- Reflect UV Rays
- Ideal for Sensitive Skin

Chemical



• Absorb UV & Convert to Heat

- e.g, Avobenzone, Oxybenzone



Latest 2025 Update:

FDA Proposes Adding Bemotrizinol
As New Broad-Spectrum Ingredient
After 25 Years

Classification of Sunscreens

Key Differences

Physical

 Immediate protection

 Less irritating

 May leave white cast

Chemical

 Lightweight

 Cosmetically elegant

 Absorption concerns

Hybrid Formulas

 Combine both for enhanced efficacy

2025 Update:

SAFE Sunscreen Standards Act

Aims to streamline approval of innovative filters



Understanding SPF & Guidelines

SPF Measures UVB Protection

SPF 30 blocks ~97% of UVB rays



Broad-Spectrum Protection

Guards against UVA & UVB Rays

⌚ Reapply Every 2 Hours



Sunscreen Recommendations

☀️ SPF 15+ Daily

☀️ SPF 30+ Extended Exposure
Water-Resistant 40-80 Minutes



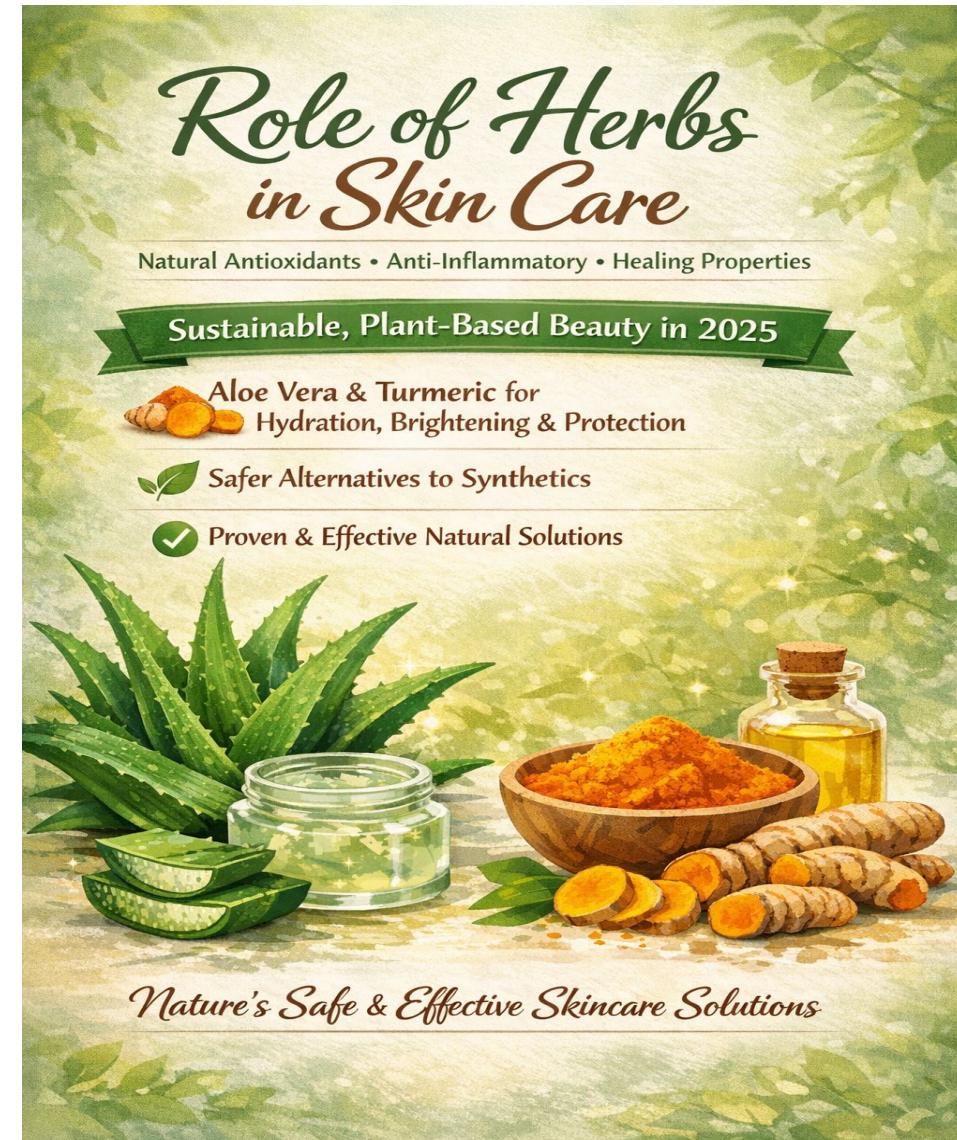
Latest 2025 Update

Minimum **SPF 50** Required

373 nm UVA Protection Standard

New Guidelines





Aloe Vera in Skin Care

Soothes irritation, hydrates deeply, and reduces inflammation



Rich in vitamins & enzymes for wound healing and acne control



Latest Applications:



- ◆ Anti-Aging Effects in 2025 Studies
- ◆ Treating Skin Diseases & Microbiome Support

Use: In Gels, Masks & Serums for Overnight Regeneration









Henna in Hair Care

-  Natural dye for vibrant color without ammonia or peroxides
-  Binds to keratin for stronger, less breakage-prone hair
-  In 2025: Vegan blocks & powders for anti-fading & scalp soothing
-  Used as masks or dyes for voluminous, pregnancy-safe results

Amla — in Hair Care —

High vitamin C boosts collagen & fights dandruff



Promotes growth, thickens strands & inhibits hair thinning enzymes



In 2025: Shampoos & Oils for Scalp Nourishment & Adaptogen Blends



Use: In Rinses, Masks & Powders for Regrowth



Role of Herbs in Oral Care: Introduction

Herbs provide
Antibacterial &
Anti-Inflammatory
Oral Benefits



Natural Alternatives to
Chemicals in 2025 Products



Focus:

Neem & Clove for
Gum Health,
Plaque Control
& Pain Relief



Trend: Integration in Toothpastes &
Mouthwashes for **Holistic Care**



Neem in Oral Care

- Antibacterial properties fight plaque, cavities, and bad breath
- Reduces gum inflammation and promotes healing
- By 2025: Herbal Toothpastes & Sticks for Preventive Dental Care





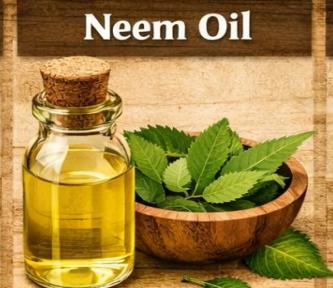
**Herbal
Toothpaste**



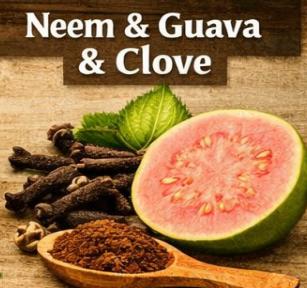
Neem Leaves



Neem Twigs



Neem Oil



Neem & Guava & Clove

Used as Twigs, Oils, or in Formulations with Guava & Clove



Clove in Oral Care

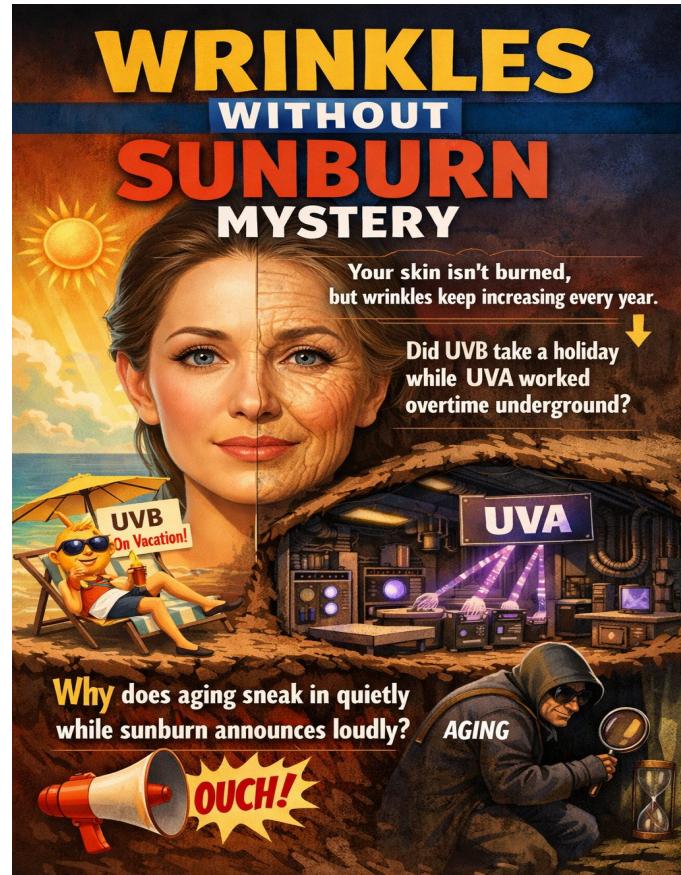
Eugenol offers pain relief for toothaches and sensitivity

Antimicrobial action enhances antibiotic efficacy against bacteria

Latest Applications:
In 2025 dentist-crafted toothpastes and capsules for oral hygiene

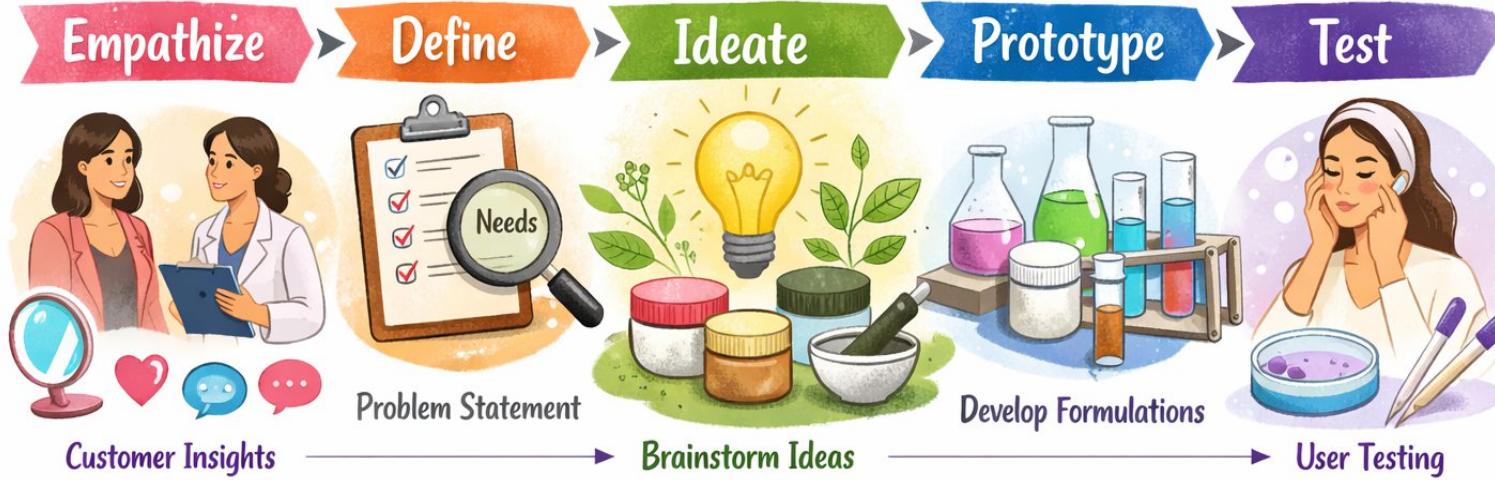
Use: In mouthwashes, gels, and powders for fresh breath and gum support

ASSESSMENT QUESTIONS



Design Thinking

— for Cosmetic Formulation —



REFERENCES :

- 1) Harry's Cosmeticology, Wilkinson, Moore, Seventh Edition, George Godwin.
- 2) Cosmetics- Formulations, Manufacturing and Quality Control, P.P. Sharma, 4th Edition, Vandana Publications Pvt. Ltd., Delhi.
- 3) Text book of cosmeticology by Sanju Nanda & Roop K. Khar, Tata Publishers.

