

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Coimbatore -641035

COURSE NAME : QCSH(BP 806 ET)

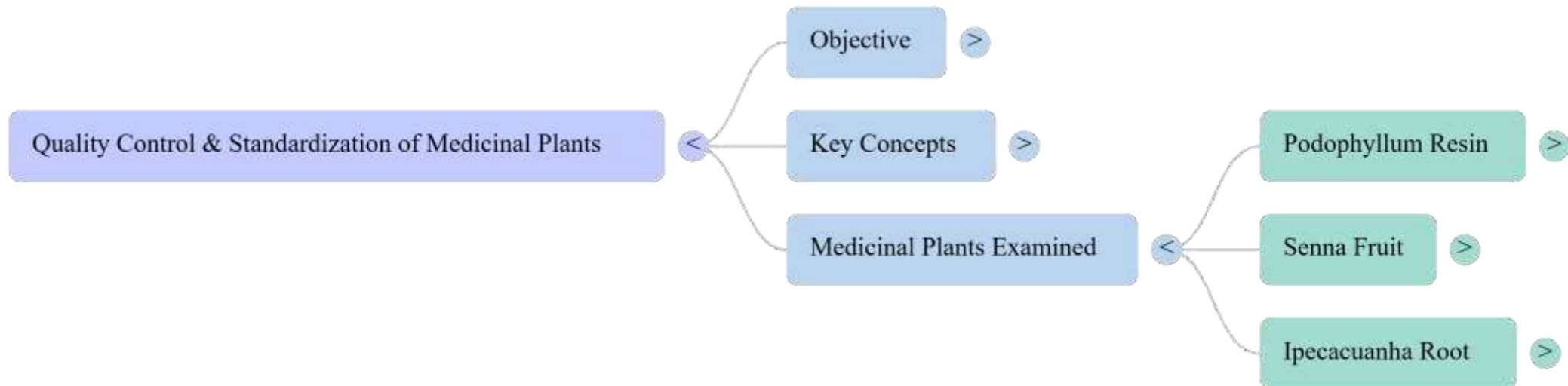
YEAR/SEM : VIII SEM

TOPIC 2 : DRUG TEST FOT MEDICINAL PLANTS

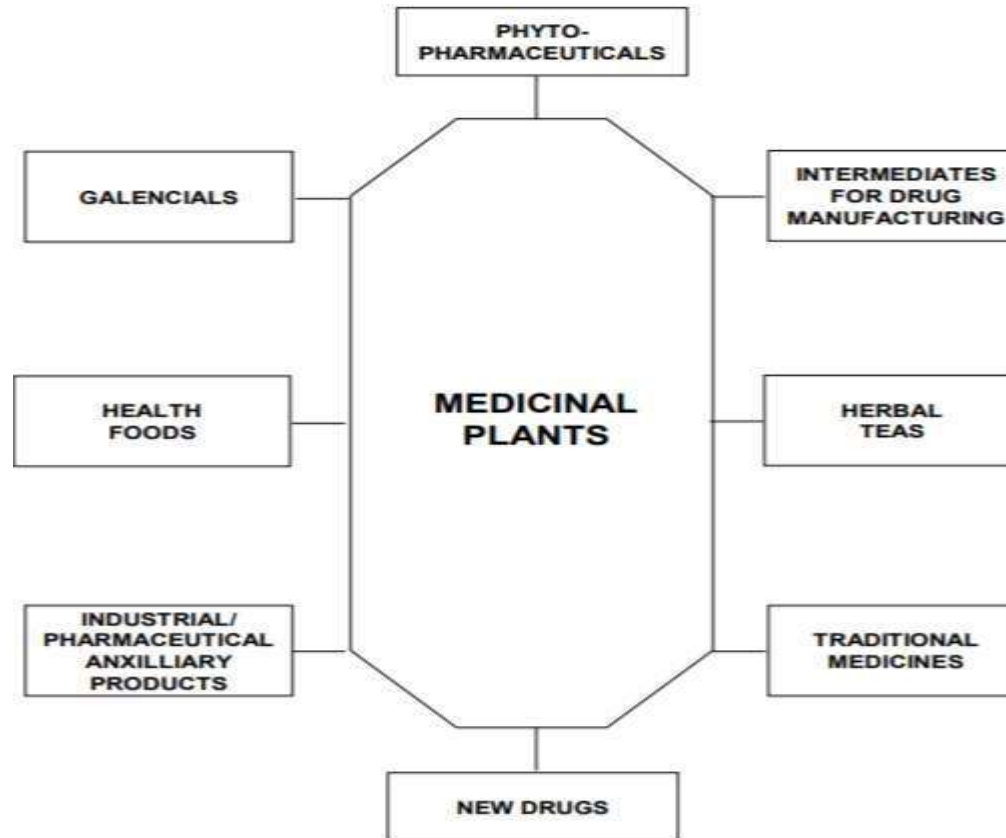
DESIGN THINKING IN QUALITY CONTROL OF MEDICINAL PLANTS

- **Empathize:** Observe traditional extraction of medicinal plants
- **Define:** State the need: “Standardized basic procedure to ensure consistent quality of plant materials.
- **Prototype:** Prepare 100 g dried leaf powder of selected plant and extract using ethanol (1:10 ratio).
- **Test:** Perform organoleptic, microscopic, and physicochemical tests (pH, solubility, TLC).

MIND MAP



MEDICINAL PLANT MATERIALS



Foundations of Medicinal Plant Use



Historical Use

Centuries of cultural
reliance on plants
for healing



Bioactive Compounds

The therapeutic
agents found within
plants



Health Benefits

The role of plants in
treating and
preventing diseases



Natural Alternative

Plants as a safer
option compared to
synthetic drugs



Ongoing Research

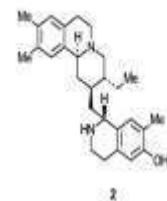
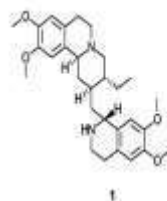
The continuous
exploration of plants
for new medications

Made with  Napkin



TEST PROCEDURES FOR MEDICINAL PLANTS MATERIALS

IPECACUANHA ROOT



IPECACUANHA ROOT

IPECACUANHA ROOT

Roots

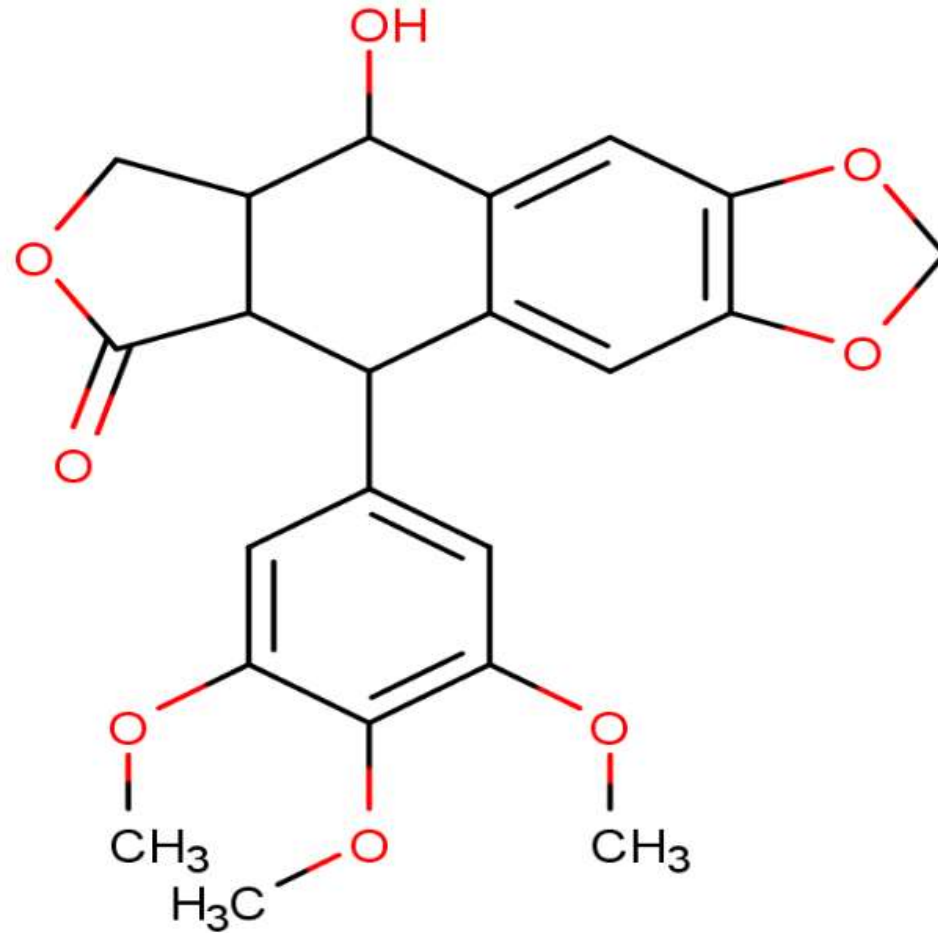
- *Ipecacuanha* root gives Emetine, used to induce vomiting as in accidental poisoning. It also has amoebicidal properties.



PODOPHYLLUM RESIN



PODOPHYLLUM RESIN



Podophyllum is applied directly to the skin for removal of warts, including plantar warts and genital warts.

The root of Podophyllum is used to make medicine.

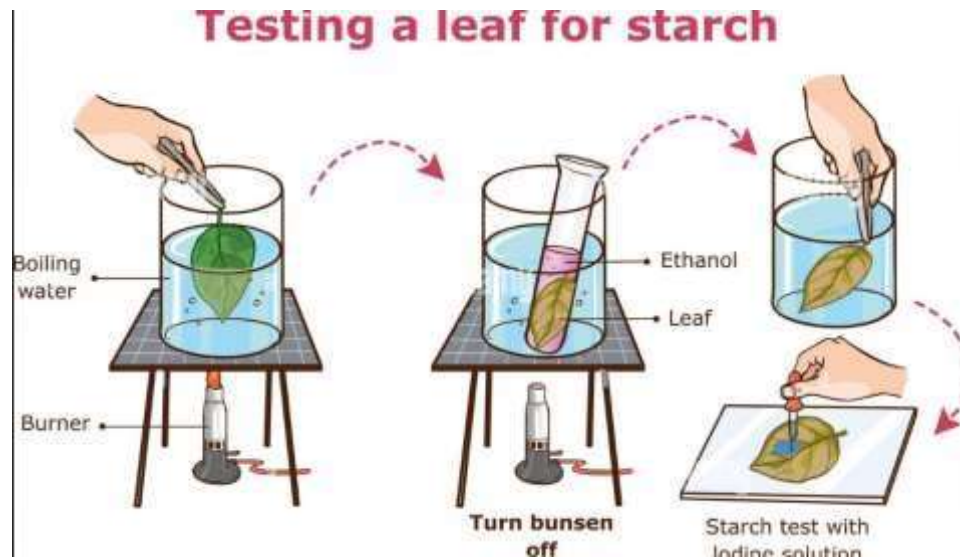
As a laxative.

It's used for yellowed skin, liver ailments, fever, syphilis, hearing loss, and cancer.

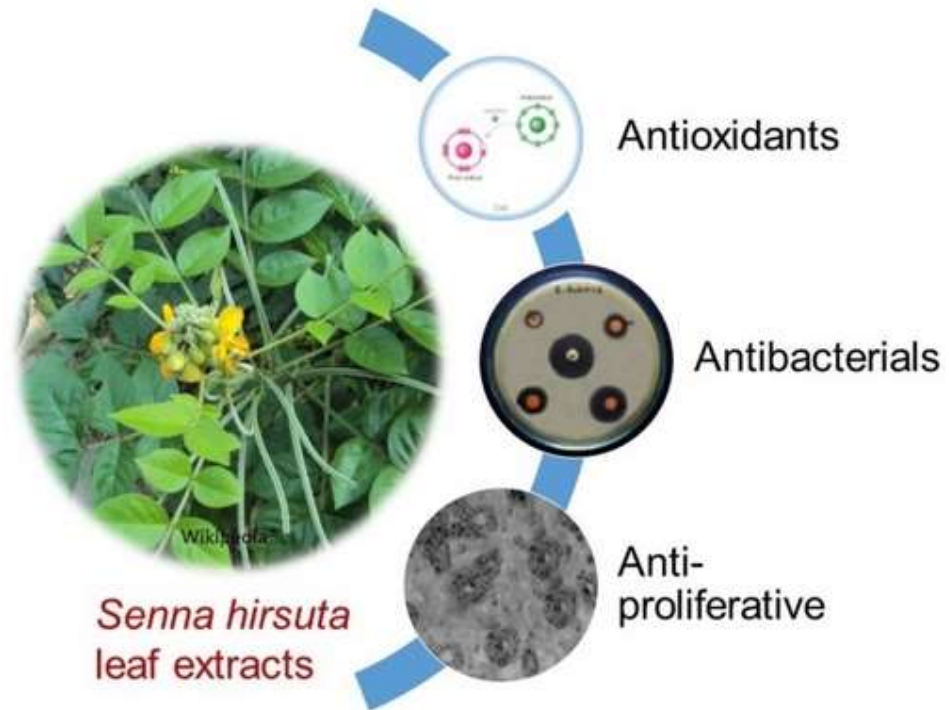
To kill parasitic worms in the intestine, and counteract snakebite.



SENNA LEAF



SENNA LEAF



SENNA FRUIT



SENNA FRUIT

Phytoconstituents	Fruit Extracts in different solvent media	
	Methanol	Ethyl acetate
Alkaloid	-	-
Steroid	+	+
Phenol	+	+
Flavonoid	+	+
Saponin	-	-
Tannin	-	-
Phytosterol	-	+
Gums & Resins	-	-
Terpenoid	-	-

CLASS ASSESSMENTS

1. Which of the following is the primary source of Ipecacuanha root as per its composition?



CLASS ASSESSMENTS

What is the characteristic description of Podophyllum resin in identity tests?



SUMMARY

- Basic procedure for medicinal plant materials starts with drying, grinding, and sieving to prepare uniform powder.
- Extraction uses ethanol (1:10 ratio), followed by filtration and vacuum concentration to yield crude extract.
- Quality criteria: moisture 20% for CRDDS suitability. Identity tests include organoleptic (odour, taste), microscopic, and physicochemical (pH, TLC) evaluation.
- Design Thinking ensures standardized, reproducible processing to minimize variability in plant-based formulations.

REFERENCE

1. Pharmacognosy by Trease and Evans
2. Pharmacognosy by Kokate, Purohit and Gokhale
3. Rangari, V.D., Text book of Pharmacognosy and Phytochemistry Vol. I, Carrier Pub., 2006.
4. Aggrawal, S.S., Herbal Drug Technology. Universities Press, 2002.
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THANK YOU