

St. James College of Pharmaceutical Sciences St. James medical Academy River Bank, Chalakudy			
Programme:	B.P harm	Sem.:	II
Name of Course: (Subject)	Herbal and cosmetics Analysis	Course Code:	MPA 204T
Teaching faculty of the course	Mr. Aravind R		

Summary of the Lecture Plan

Topic	Lectures	Hours
Herbal remedies Toxicity and Regulations	Herbals vs Conventional drugs	1
	Efficacy of herbal medicine products	2
	Validation of Herbal Therapies	2
	Pharmacodynamic and Pharmacokinetic issues	2
	Herbal drug standardization: WHO guidelines	3
	Herbal drug standardization: Ayush guidelines	2
Adulteration and Deterioration	Introduction to types of adulteration/substitution of herbal drugs	2
	Causes and Measure of adulteration	1
	Sampling Procedures,	2
	Determination of Foreign Matter, DNA Finger printing techniques in identification of drugs of natural origin,	1
	Determination of heavy metals, pesticide residues, phototoxin and microbial contamination in herbal formulations.	1
	Regulatory requirements for setting herbal drug industry	1
	Global marketing management	1
	Indian and international patent law as applicable to herbal drugs and natural products and its protocol	3
Testing of natural products and drugs	Effect of herbal medicine on clinical laboratory testing.	2
	Adulterant Screening using modern analytical instruments	2
	Regulation and dispensing of herbal drugs.	1
	Stability testing of natural products, protocol	1
	Monographs of Herbal drugs: Study of monographs of herbal drugs and comparative study in IP, USP, Ayurvedic Pharmacopoeia, American herbal Pharmacopoeia, British herbal Pharmacopoeia, Siddha and Unani Pharmacopoeia,	3
	WHO guidelines in quality assessment of herbal drugs	3
Herbal drug-drug interaction: `	WHO guidelines for safety monitoring of natural medicine.	4

	AYUSH guidelines for safety monitoring of natural medicine.	5
	Spontaneous reporting schemes for bio drug adverse reactions and bio drug-drug and bio drug-food interactions with suitable examples.	
	Challenges in monitoring the safety of herbal medicines	2
Evaluation of cosmetic products	Determination of acid value, ester value, saponification value, iodine value, peroxide value.	2
	Determination of rancidity, moisture, ash, volatile matter, heavy metals, fineness of powder, density, viscosity of cosmetic raw materials and finished products.	2
	Study of quality of raw materials and general methods of analysis of raw material used in cosmetic manufacture as per BIS.	2
	Indian Standard specification laid down for sampling and testing of various cosmetics in finished forms such as baby care products, skin care products, dental products, personal hygiene preparations, lips stick.	6
	Hair products and skin creams by the Bureau of Indian Standards	2

Major issues or Core aspects to be addressed/ covered:

Herbal remedies- Toxicity and Regulations
Advantage and limitations of Herbals drugs and Conventional drugs
Efficacy of herbal medicine products,
Validation methods of Herbal Therapies
Pharmacodynamic and Pharmacokinetic issues with herbal medicine.
Herbal drug standardization based on WHO guidelines
AYUSH guidelines for the standardization of herbal drugs.
Adulteration and Deterioration
Definition, reason and methods of Adulteration.
Sampling Procedures for Determination of Foreign Matter, DNA Finger printing techniques in identification of drugs of natural origin, heavy metals, pesticide residues, phototoxin and microbial contamination in herbal formulations.
Regulatory requirements for setting herbal drug industry
Global marketing management
Indian and international patent law as applicable to herbal drugs and natural products and its protocol
Testing of natural products and drugs
Effect of herbal medicine on clinical laboratory testing.
Adulterant Screening using modern analytical instruments.
Regulation and dispensing of herbal drugs.

Stability testing of natural products and protocol
Monographs of Herbal drugs: Study of monographs of herbal drugs and comparative study in IP, USP, Ayurvedic Pharmacopoeia, American herbal Pharmacopoeia
WHO guidelines in quality assessment of herbal drugs.
Herbal drug-drug interaction
WHO and AYUSH guidelines for safety monitoring of natural medicine.
Spontaneous reporting schemes for bio drug adverse reactions.
Bio drug-drug and bio drug-food interactions with suitable examples.
Challenges in monitoring the safety of herbal medicines
Evaluation of cosmetic products
Determination of acid value, ester value, saponification value, iodine value, peroxide value and rancidity of finished formulations.
Determination of moisture, ash, volatile matter, heavy metals, fineness of powder, density, viscosity of cosmetic raw materials and finished products.
Study of quality of raw materials and general methods of analysis of raw material used in cosmetic manufacture as per BIS
Indian Standard specification laid down for sampling and testing of various cosmetics in finished forms such as baby care products, skin care products, dental products, personal hygiene preparations, lips stick.
Evaluation of Hair products and skin creams by the Bureau of Indian Standards

Sample Questions

Herbal remedies- Toxicity and Regulations
1. Give the advantage and limitations of Herbals drugs and Conventional drugs
2. Write a note on Efficacy of herbal medicine products,
3. Describe the Validation methods of Herbal Therapies
4. Explain the Pharmacodynamic and Pharmacokinetic issues with herbal medicine.
5. Describe the Herbal drug standardization based on WHO guidelines
6. Outline the AYUSH guidelines for the standardization of herbal drugs.
Adulteration and Deterioration
1. Write the procedure involved for determination of adulterations.
2. Explain Sampling Procedures for Determination of DNA Finger printing techniques in identification of drugs of natural origin.
3. Regulatory requirements for setting herbal drug industry
4. Write notes on Global marketing management.
5. Describe Indian and international patent law as applicable to herbal drugs and natural products and its protocol
6. Explain the methods to determine heavy metals, pesticide residues, phototoxin and microbial contamination in herbal formulations
Testing of natural products and drugs
1. Describe the Effect of herbal medicine on clinical laboratory testing.
2. Write notes on Adulterant Screening using modern analytical instruments. Regulation

and dispensing of herbal drugs.
3. Describe the Stability testing of natural products and protocol
4. Outline the monographs of ginger and compare with Ayurvedic Pharmacopoeia and American herbal Pharmacopoeia
5. Describe WHO guidelines in quality assessment of herbal drugs.
6. Explain the regulations to be followed in herbal industry.
Herbal drug-drug interaction
1. Explain the WHO guidelines for safety monitoring of natural medicine.
2. Describe the AYUSH guideline for the safety monitoring of herbal drugs.
3. Write about Bio drug-drug and bio drug-food interactions with suitable examples.
4. Explain the challenges in monitoring the safety of herbal medicines
5. Explain spontaneous reporting schemes for bio drug adverse reactions.
6. Write notes on Pharmacovigilance.
Evaluation of cosmetic products
1. Give the methods for determination of acid value, ester value, saponification value, iodine value, peroxide value and rancidity of finished formulations.
2. Write the methods for the determination of moisture, ash, volatile matter, heavy metals, fineness of powder of cosmetic raw materials and finished products.
3. Describe the general methods of analysis of raw material used in cosmetic manufacture as per BIS
4. Explain Indian Standard specification laid down for sampling and testing of baby care products.
5. Evaluation of Hair products and skin creams by the Bureau of Indian Standards
6. Describe the methods of determination of density and viscosity
7. Describe the analysis of skin care products, dental products and personal hygiene preparations.
8. Give the method of analysis of lips stick.