

QUALITY CONTROL & PHARMACOGNOSY
6-day CME for Teachers Module

S.No	Topic	Contents	Duration in Hours
1.	Nama-rupa Jnana	Importance of Nama-rupa Jnana for identification of genuine plant drug substances: Basis of nomenclature, basonym and its importance, relevance of synonym. Etymological derivation of Basonym and Synonym and their importance in drug identification.	1 ½ Hour
2.	Pharmacognosy	Practical demonstration: Macroscopic and Microscopic Approach for Identification of useful parts used as Drug in Ayurveda. Useful plants parts described in Ayurvedic Classics, Source and their availability in different geographical region with their local name, Crude drug markets in India. Adulterants, Substitutes, spurious drugs, Drugs and Cosmetic Act, 1940.	1½ Hour
3.		Ayurvedic methods and techniques for quality control and standardization of Ayurvedic drugs. 1. Parameter for crude drug standardization. 2. Specific time for cultivation and harvesting of important medicinal plants.	1½ Hour
4.		Practical demonstration of pharmacognostical methods and Advance chromatographic and genomic marker techniques for identification of herbal drugs.	1½ Hour
5.		Techniques for detection and quantification of active principles in medicinal plants used in Ayurveda. 1. Active principles as secondary metabolites in plants. 2. Biosynthetic pathways. 3. Factors affecting synthesis and accumulation. 4. Phytochemical methods of qualitative analysis. 5. Laboratory techniques of quantitative analysis.	1½ Hour
6.	Taxonomy	Morphological characters for identification. Taxonomy and its application for drug identification. 1) Binominal nomenclature 2) Advantages of Binomial nomenclature. 3) Coining of genetic name. 4) Coining of specific epithet. 5) Conserved name. 6) Latin diagnosis. Principles of ICBN (International Code of Botanical Nomenclature)	1½ Hour
7.	Pharmacovigilance	Pharmacovigilance in Ayurvedic Drugs. 1. Importance of Pharmacovigilance in Ayurvedic Drugs. 2. Applied aspects of Pharmacovigilance. 3. Reported Adverse Drug Reaction of Ayurvedic Drugs. 4. Drug to drug interaction. 5. Drug to herbs interaction.	1½ Hour

8.	Safety	Exploring evidence for efficacy and safety of Ayurvedic drugs.	1½ Hour
9.	Phytochemistry	Development of drugs from medicinal plants and exploration of phytochemical profiles of plants.	1½ Hour
10.		Quantitative and qualitative analysis for Standardization of Herbal drugs with special reference to Pharmacognosy. 1. Preliminary phytochemistry. 2. Analysis of different cells and structure. 3. Powder Microscopy. 4. Quantitative standard. 5. Parameters for pharmacognostic studies.	1½ Hour
11.		Demonstration of plant parts & their sections, different cell contents and elements in various plant parts.	1½ Hour
12.		An overview on Resent Trend in Standardization of Herbal Drugs. 1. Regulatory methods. 2. Biological screening method. 3. Biological and Chemical standardization. 4. Tools and Techniques used in Ayurvedic Drugs Standardization.	1½ Hour
13.		Pharmacognosy Retrospect and Prospect. 1. Basic concepts of Pharmacognosy. 2. Changes and diversification and addition to various aspects of Pharmacognosy. 3. Prospects of Pharmacognosy. 4. Macroscopic and Microscopic characters of plants.	1½ Hour
14.		Herbarium Techniques and Identification of Medicinal Plants. Basics of Herbarium. Techniques involve in collection, preparation and preservation of Herbarium of Medicinal Plants Importance of Herbarium. Herbarium as tool in identification and research.	1½ Hour
15.		Demonstrations of Techniques involved in Herbarium.	1½ Hour
16.	Garden	1½ Hour	
17.	Garden	1½ Hour	
18.	demonstration for identification of	1½ Hour	
19.	Important Medicinal Plants.	1½ Hour	
20.			1½ Hour
21.			1½ Hour
22.			1½ Hour
23.			1½ Hour
24.			1½ Hour
			01 hour
			38½ Hours