

PhD Syllabus

Dravyaguna

Marks-2

1. Dravyaguna Vigyana- Saptapadharta

2. Dravya- Panchabhoutikatwa of Dravya, Classification of Dravya based on Utpattibheda, Yonibheda, Prayogabheda, Prabhavbheda, Doshagnabheda, Rasabheda and Karmbheda.

Marks-2

3. Guna- Panchabhoutikatva, characteristics and classification, Gurvadiguna and its karma on Dosha, Dhatu and Mala, clinical application and research updates, Paradiguna with examples, clinical applications and research updates.

Marks-2

4. Rasa- Meaning of "Rasa" in various contexts, Shadrassa in relative correlation with taste of chemical constituents.
Rasotpatti and Panchabhoutika constitution of Shadrassa, Rasopalabdhi and pathway of taste perception & sites of taste receptors in the body.
Rasa -Lakshana, Guna & Karmas of each Rasa on Dosha, Dhatu and Mala, Atiyogalakshana.
Clinical application and Research updates of Shadrassa, Anurasa, Rasa Sevanakrama of Aushadha.

Marks-1

5. Vipaka- Trividha Vipaka, Vipak karma on Dosha, Dhatu and Mala, Clinical application and Research updates, Vipakopalabdhi (Determination of Vipaka) & Taratamya (Degree of variation).

Marks-2

6. Virya- Difference between Guna and Virya, Karmas of Virya on Dosh, Dhatu and Mala, Clinical application and Research updates, Viryaopalabdhi (Determination of Virya) and understanding of Virya with respect to actions of active constituents.

Marks-1

7. Prabhava- Samanapratyayarabdha and Vichitrapratyayarabdha, Clinical application of Prabhava and Research updates.

Marks-1

8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava-
Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength- Pharmacodynamics.

Marks-2

9. Karma- Individual Karma, correlation with contemporary pharmacological action, examples, clinical application and research updates. Deepana, Pachana, Samshodhana, Samshamana, Anulomana, Sransana, Bhedana, Rechana, Chhedana, Lekhana, Grahi, Sthambhana, Madakari, Pramathi, Abhishyandi, Vyavayi, Vikashi, Rasayana, Vajeeekarana, Medhya.

Marks-3

10. Principles of General Pharmacology- Drug definition, drug dosage forms, route of drug administration, pharmacokinetics (ADME), pharmacodynamics, Drug dose, principles of drug action, mechanism of drug action & bioavailability,

Drugs Acting on Central Nervous System: Anesthetics, Sedative Hypnotics, Antiepileptics, Antiparkinsonian, Antidepressants, Antianxiety Drugs, Opioid - Analgesics Drugs, Drugs Acting on Peripheral (somatic) Nervous System: Skeletal Muscle Relaxants, Local Anesthetics, Autacoids and Related Drugs: Nonsteroidal Anti-inflammatory (NSAIDs) / Antipyretic and Analgesics Drugs.

Drugs for Respiratory Disorders: Bronchodilators, Aerosols/ Inhalants Expectorants, Antitussive Drugs.

Cardiovascular Drugs: Antihypertensive, Antianginal Drugs,

Drugs Acting on Kidney: Diuretics, Drugs Affecting Blood: Hematinic, Coagulants, Anticoagulants, Hypolipidemic Drugs, Gastrointestinal Drugs: Antacid, Carminatives, Digestants, Antiemetics, Laxatives, Antidiarrheal, Hepatoprotective Drugs. Antibacterial Drugs: Antibiotics, Antitubercular. Drugs, Antifungal, Antiviral, Antimalarial and Anthelmintic. Drugs, Hormones and Related Drugs: Thyroid Hormone, Thyroid Inhibitors, Insulin, Oral Antidiabetic, Hormonal Contraceptives, Uterine Stimulants, Uterine Relaxants Drugs, Miscellaneous Drugs: Antiseptics and Disinfectants, Vaccines, Vitamins, Water imbalance and IV fluids.

Marks-2

11. Mishraka Gana- Mishrakagana: its composition, guna karma and therapeutic uses, Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kantakapanchamoola, Trinapanchamoola, Panchavalkala, Triphala, Trikatu, Trimada, Chaturusana, Panchakola, Shadusana, Chaturbeeja, Trijataka, Chaturajataka, Panchatikta, Chaturbhadra, Trikarshika.

Marks-1

12. Panchamahabhuta siddhanta, Samanya Vishesa siddhanta, Tridosha siddhanta. Extensive study on classifications of Dravya as described in Brihatrayi.

Marks-1

13. Applied aspects of Aushdha karma with reference to Sharngadhara and Bhavaprakasha

Marks-1

14. Importance of Namarupa vigyan and concept of basonyms and synonyms of Dravyas

Marks-1

15. Applied knowledge of Bhaishajya Prayoga (marga, kalpana, matra, anupana, sevan, kala etc.)

Marks-1

16. Basic principles of Desha pravichara, Dravya sangrahana (collection), Samrakshana (preservation)

Marks-1

17. Evolution of Dravyaguna vigyan with special emphasis on Nighantus

Marks-1

18. Prashasta bhesaj lakshana

Marks-1

19. Profound knowledge on applied aspects of Agrya aushadha

Marks-1

20. Methodology of studying controversial, pratinidhi (substitute), apamishrana (adulterant) and unidentified Dravya

Marks-1

21. An integrated study of Charakokta Bhesaj pariksha and scientific method of drug evaluation with special reference to quality, safety and efficacy

Marks-1

22. Pharmacovigilance and ADR issues

Marks-1

23. Knowledge on the Ayurvedic Pharmacopoeia of India, The Formulary of India and international pharmacopoeias

Marks-1

24. Importance of Namagyana of Dravya, origin of Namarupagyana of Aushadhi in Veda, etymological derivation of various names and synonyms of Aushadhi.

Marks-1

25. Rupagyana in relation to Aushadhi. Sthula and Sukshma description (Macroscopic and Microscopic study) of different parts of the plant.

Marks-1

26. Synonyms of dravyas(aushadha and Ahara) mentioned in Vedic compendia, Brihatrayee, Bhavaprakasha and Rajanighantu.

Marks-1

27. Basonyms, synonyms and distinguish morphological characteristic features of medicinal plants listed in Ayurvedic Pharmacopoeia of India (API).

Marks-1

28. Knowledge of Anukta dravya (Extrapharmacopial drugs) with regards to namarupa.

Marks-1

29. Sandigdha dravya(Controversial drugs) vinischaya.

Marks-1

30. Knowledge of TKDL, Introduction to relevant portions of Drugs and cosmetic act, Magic remedies Act, Intellectual Property Right (IPR) and Regulations pertaining to Import and Export of Ayurvedic drugs.

Marks-1

31. Knowledge of Genetically Modified Plants

Marks-1

32. Fundamental principles of drug action in Ayurveda and conventional medicine.

Marks-1

33. Detailed study of Guna and Karma of dravyas listed in API and Bhavaprakasha Nighantu along with current research review.

Marks-1

34. Detailed study of aharadravya/ ahara varga ascribed in Brihatrayee and various nighantus along with Kritanna varga.

Marks-2

35. Basic knowledge on experimental pharmacology for the evaluation of - analgesic, anti-pyretic, anti-inflammatory, anti-diabetic, anti-hypertensive, hypo lipidemic, anti-ulcer, cardio protective, hepatoprotective, diuretics, adaptogens, CNS activities.

Marks-1

36. Knowledge on Heavy metal analysis, pesticidal residue and aflatoxins

Marks-1

37. Knowledge on evaluation of anti- microbial and antimycotic activities.

Marks-1

38. Samyoga- Viruddh Sidhanta and its importance

Marks-2

39. Knowledge of Pharmacogenomics. Etymology of nighantu, their relevance, utility and salient features. Chronological history of the following Nighantus with their authors name, period and content- Paryaya ratnamala, Dhanvantari nighantu, Ashtanga nighantu, Rajanighantu, Bhavaprakasha nighantu, Madanpala nighantu, Kaiyadeva nighantu, Saligram Nighantu, Nighantu adharsha etc.

Marks-1

40. Detailed study Aushadha kalpana mentioned in Sharangadhara samhita and Ayurvedic Formulary of India (AFI).

Marks-1

41. Knowledge of plant extracts, colors, flavors and preservatives.