Pharmacognosy Question Bank (Chapters 3, 4, 5)

Chapter 3: Classification, Quality Control, and Evaluation of Crude Drugs

Short Answer Questions (2-3 Marks Each)

1. Define crude drugs and explain their classification based on morphological characteristics.

2. What is the difference between organized and unorganized crude drugs? Provide two examples of each.

3. Describe the chemical classification of crude drugs with examples of drugs containing alkaloids and glycosides.

4. Explain the significance of quality control in the evaluation of crude drugs.

5. List the physical tests used to evaluate crude drugs and briefly describe any one.

Long Answer Questions (5-7 Marks Each)

6. Discuss the various methods of classifying crude drugs. Which method is most commonly used and why?

7. Explain the role of chemical tests in the quality control of crude drugs. Provide examples of chemical tests for detecting alkaloids and flavonoids.

8. Describe the steps involved in the microscopical evaluation of crude drugs. Why is it important in pharmacognosy?

9. Discuss the factors affecting the quality of crude drugs during collection and storage.

10. Write a note on the adulteration of crude drugs and methods to detect it.

Practical-Based Questions (3-5 Marks Each)

11. Describe the procedure to perform a chemical test for the identification of tannins in a given crude drug sample.

12. How would you carry out the microscopical examination of a crude drug to identify its anatomical characteristics?

13. Explain the method to determine the moisture content of a crude drug sample. Why is this test important?

14. Perform the physical evaluation of a given crude drug sample and list the parameters to be recorded.

15. Write the procedure for conducting a swelling index test for Ispaghula seeds.

Chapter 4: Medicinal and Aromatic Plants, Role in Economy, and Herbal Formulations

Short Answer Questions (2-3 Marks Each)

16. Define medicinal and aromatic plants and give two examples of each.

17. What is the role of medicinal plants in the national economy of India?

18. List four herbs commonly used as health foods and mention their benefits.

19. Explain the term "herbal formulations" with an example.

20. What are nutraceuticals? Provide two examples of herbs used as nutraceuticals.

Long Answer Questions (5-7 Marks Each)

21. Discuss the economic importance of medicinal and aromatic plants in India, with specific examples.

22. Explain the process of preparing herbal formulations, including the role of standardization.

23. Describe the contribution of herbal cosmetics to the pharmaceutical industry, with examples of herbs used in cosmetics.

24. Discuss the challenges faced in the cultivation and trade of medicinal plants in India.

25. Write a detailed note on the role of herbs as health foods and their significance in preventive healthcare.

Practical-Based Questions (3-5 Marks Each)

26. Describe the morphological characteristics of Fennel and Coriander seeds and how to differentiate them.

27. Explain the procedure for preparing a transverse section of Ginger rhizome for microscopical study.

28. How would you identify the crude drug Senna based on its morphological features?

29. Write a report on a field visit to a traditional pharmacy to understand the availability of herbal formulations.

30. Demonstrate the method to evaluate the quality of Clove using physical and chemical tests.

Chapter 5: Phytochemical Investigation and Alternative Systems of Medicine

Short Answer Questions (2-3 Marks Each)

31. Define phytochemical investigation and list two techniques used in it.

32. What are the principles of Ayurveda as an alternative system of medicine?

33. Name two crude drugs used in the Homeopathic system of medicine and their applications.

34. Explain the role of chromatography in phytochemical investigation.

35. What is the significance of standardization in herbal medicines?

Long Answer Questions (5-7 Marks Each)

36. Discuss the various techniques used in the phytochemical investigation of crude drugs, with examples.

37. Explain the principles of alternative systems of medicine, such as Ayurveda, Unani, and Siddha.

38. Describe the role of spectroscopy in the identification and quantification of phytochemicals in crude drugs.

39. Discuss the importance of quality control in herbal medicines and the methods used for standardization.

40. Write a note on the integration of traditional and modern medicine in the use of herbal drugs.

Practical-Based Questions (3-5 Marks Each)

41. Describe the procedure for conducting a thin-layer chromatography (TLC) test to identify phytochemicals in a crude drug.

42. Explain how to perform a chemical test to detect glycosides in a given crude drug sample.

43. Write the steps to prepare a crude drug sample for phytochemical screening.

44. Demonstrate the identification of Cinchona bark based on its anatomical characteristics under a microscope.

45. Prepare a report on the learning outcomes from a field visit to a pharmacy dealing with Ayurvedic medicines.

Assignment-Based Questions (5 Marks Each)

46. Write an assignment on the significance of quality control and quality assurance in the evaluation of crude drugs.

47. Prepare an assignment discussing the role of medicinal and aromatic plants in the national economy.

48. Submit an assignment on the principles and practices of the Unani system of medicine.

49. Write an assignment on the various monographs and formularies available for herbal drugs and their major contents.

50. Prepare an assignment on the use of software programs for phytochemical analysis in pharmacognosy.

Notes on the Question Bank

- **Syllabus Reference**: The questions are based on the Pharmacognosy syllabus outlined in the document (pages 27-30), covering theory (ER20-13T) and practical (ER20-13P) components. The topics for Chapters 3, 4, and 5 are inferred from the syllabus structure, focusing on classification, quality control, medicinal plants, herbal formulations, and phytochemical investigation.

- **Question Types**: The question bank includes short answer questions (2-3 marks), long answer questions (5-7 marks), practical-based questions (3-5 marks), and assignment-based questions (5 marks) to align with the syllabus's emphasis on theory, practicals, and assignments.

- **Practical Focus**: Practical questions are derived from the list of experiments (e.g., morphological identification, transverse section preparation, and chemical tests) mentioned on page 30.

- **Assignments**: Assignment questions are based on the topics listed on page 26, tailored to the relevant chapters.

- **Field Visits**: Some questions incorporate the syllabus's requirement for field visits to traditional pharmacies (page 30).

If you need further clarification, additional questions, or a focus on specific sub-topics within these chapters, please let me know!