II – PHARM. D

PHARMACOGNOSY AND PHYTOPHARMACEUTICALS (RS2)

QUESTION BANK

Chapter 1: Detailed study of various cell constituents

Short Answers: 2 Marks

1. List out the various types of plant constituents.
2. Name the different types of phytoconstituents present in plants.
3. Define carbohydrates and glycosides.
4. What are primary cell constituents? Give examples.
5. Give the general tests for the identification of carbohydrates.
6. Give the chemical tests for the identification of proteins
7. Give the chemical tests for the identification of tannins.
8. Define primary metabolites with examples.
9. Define secondary metabolites with examples.
10. List out the secondary metabolites of plants.
11. What is latex? Give examples.
12. What is lignin? Give the test for identification of lignin.
13. Give the importance's of primary and secondary metabolites.

Chapter 2: Study of cell wall constituents and cell inclusions

Short Answers: 2 Marks

1. Enumerate the cell wall constituents.
2. List outdifferent ergastic substances with examples.
3. Explain with examples non-living cell inclusions.
4. Write a note on composition of plant cell wall.
5. Explain the cell wall components and their significance.
6. Discuss the cell wall components and ergastic cell inclusions.
7. Write the chemical test for lignin and mucilage
8. Write the chemical test for starch and mucilage.
9. Name the various types of excretory products of plant
10. Name the different types of calcium oxalate crystals.
11. Name the various types of secretory products of plant.

12. Give the composition of cell wall.

Chapter 3: Introduction

Chapter 4: Definition, History and Scopeof Pharmacognosy

Short Answers: 2 Marks

1. Define Pharmacognosy. Who coined the term Pharmacognosy?
2. Explain the scope of Pharmacognosy.
3. Define Phamacognosy and Phytopharmaceuticals.
4. Outline the status of Pharmacognosy in the area of research and industry.
5. What is Pharmacognosy. Mention the present status of Pharmacognosy.
6. Discuss the Scope of Pharmacognosy.
7. Define Pharmacognosy and Crude drug.
8. Name the natural sources of crude drugs with examples.
9. Name the traditional system of medicines.
10. Importance of Pharmacognosy.
11. Differentiate between organized and un-organized drugs with suitable examples.

Chapter 5: Classification of crude drugs

Long Essays: 10 Marks

1. Define crude drug. Discuss various methods of classification of crude drugs with suitable examples.
2. Discuss the various methods of classification of crude drugs with particular emphasis on the merits and demerits of each method.
3. Explain in detail chemical and pharmacological methods of classification of crude drugs with examples.
4. Describe different methods of classification of crude drugs with examples. Give its advantages and disadvantages.
5. Define crude drug. Enlist different method of classifying crude drugs. Explain in detail pharmacological method of classification.
6. Describe the classification of crude drugs based on chemicalconstituents and pharmacological activity with examples.

7. Differentiate between taxonomy and chemotaxonomy. Describe their significances with reference to classification of crude drugs.
8. Write a note on advantages and disadvantages of various methods of classification of crude drugs.
9. Explain in detail botanical/ taxonomical and morphological classification of crude drugs with examples.
10. Explain in detail alphabetical and pharmacological classification of crude drugs with examples.
11. Explain the taxonomical and chemo-taxonomical classification of crude drugs with examples.
12. Explain in detail morphological and pharmacological classification of crude drugs with examples.
13. Explain in detail morphological and chemical classification of crude drugs with examples.

Short Essays: 5 Marks

14. Write a note on morphological classification of crude drugs with examples.
15. Write a note on differences between organized and unorganized drugs with examples.
16. Enumerate with examples chemical classification of crude drugs.
17. Explain with examples therapeutic classification of crude drugs.
18. Give the chemical classification of crude drugs with examples.
19. Explain the taxonomical and chemo- taxonomical classification of crude drugs with examples.
20. Give the pharmacological classification of crude drugs with examples

Short Answers: 2 Marks

21. Define chemotaxonomy. Give examples.
22. Give the significances of chemotaxonomy.
23. Classify the crude drugs based on alphabetical method of classification.
24. What are organized and unorganized drugs give examples.
25. Give the advantages and dis advantages of chemical classification.
26. Give the advantages and dis advantages of pharmacological classification.
27. Give the advantages and dis advantages of morphological classification.

28. Give the advantages and dis advantages of alphabetical classification.
29. Give the advantages and dis advantages of taxonomical classification.
30. Give the advantages and dis advantages of chemotaxonomical classification.

Chapter 6: Cultivation, collection, processing and storage of crude drugs

Long Essays: 10 Marks

1. Mention the advantages and disadvantages of cultivation of medicinal plants with examples.
2. Define cultivation**.** Explain various factors affecting cultivation of medicinal plants.
3. Write a note on storage of crude drugs and their significances.
4. Explain in brief conservation of medicinal plants and its importance's.
5. Discuss in detail the various factors affecting cultivation of medicinal plants.
6. Enumerate the factors affecting cultivation of medicinal plants.
7. Write note on various methods of cultivation of medicinal plants.
8. Write a note on storage and processing of crude drugs.
9. Write an account on the method of drying, preservation and storage of crude drugs.
10. Write in detail about the general methods of cultivation and collection of medicinal Plants.

Short Essays: 5 Marks

11. Explain in brief storage of crude drugs with examples.
12. Write a note on Plant growth regulators.
13. Explain various methods of processing of crude drugs.
14. Explain in brief on method of drying, preservation and storage of crude drugs.
15. Explain in brief on various factors affecting cultivation of crude drugs.
16. Write in brief about conservation of medicinal plants and its importance's.
17. Give the merits and demerits of cultivation of medicinal plants.
18. Write a note on collection of barks and latex.
19. Explain in detail various methods of cultivation of medicinal plants.
20. Describe the vegetative method of propagation of medicinal plants.
21. Define soil fertility. Explain the importance of soil in cultivation of medicinal plants.

22. Describe the various methods of pest control.

Short Answers: 2Marks

23. List out the factors affecting cultivation of medicinal plants.
24. Give the significances of storage and processing of crude drugs.
25. Write a note onedaphic factor.
26. What are auxins? Give its significance.
27. What are gibberlins? Give its significance.
28. Significance of moisture content and its control in crude drugs.
29. What is garbling?
30. What is coppicing and felling?
31. Conservation of medicinal plants.
32. What is grafting?
33. What are bio-fertilizers.
34. What is mulching.
35. List out the various methods of drying of crude drugs.

Chapter 7: Different methods of adulteration of crude drugs

Long Essays: 10Marks

1. Explain in detail the various methods of adulteration of crude drugs with examples.
2. Explain thefive different methods usedfor adulteration of crude drugs and discuss.
3. Define adulteration. Explain the various methods of adulteration with examples.
4. What do you mean by deliberate and indeliberate adulteration give examples?

Short Essays: 5 Marks

5. Define adulteration and explain the various methods of adulteration.
6. Define adulteration and give the reasons for adulteration with examples.
7. What do you mean by deliberate and indeliberate adulteration with examples?
8. Discuss with examples on adulteration of powder and liquid drugs.
9. Explain in detail the methods of adulteration of crude drugs with examples.
10. Name five different methods used for adulteration of crude drugs and explain with examples.
11. What is adulteration? Explain in-deliberate adulteration of crude drugs with examples.

12. What is adulteration? Explain the deliberate adulteration of crude drugs with examples.

Short Answers: 2 Marks

13. Define Adulteration and Substitution.
14. What do you mean by deliberate and indeliberate adulteration?
15. Give the various reasons of adulteration
16. Artificial adulteration with examples.
17. Name the different methods of adulteration of crude drugs.
18. Define adulteration and sophistication.
19. What are exhausted drugs? Give examples.
20. What is harmful adulteration? Give examples.
21. Give the difference between substitute and official drug with example.
22. What is substitution? Give examples.
23. What is deterioration? Give example.
24. Adulteration of crude drugs with artificial adulterants

Chapter 8: Study of natural pesticides- Pyrethrum, Neem, Tobacco

Short Essays: 5 Marks

1. Give the advantages and disadvantages of natural pesticides.
2. Write the advantages and disadvantages of natural pesticides. Explain the role of Neem as a natural pesticide.
3. Write the advantages and disadvantages of natural pesticides. Discuss Pyrethrum and Neem as natural pesticides.
4. Write the advantages and disadvantages of natural pesticides. Discuss Pyrethrum and Neem as natural pesticides.
5. Discuss various natural pesticides along with their mode of action.
6. What are natural pesticides? Give their advantages and disadvantages.
7. Write the advantages and disadvantages of natural pesticides. Discuss Pyrethrum and Neem as natural pesticides.
8. What are natural pesticides? Give their advantages and disadvantages.

9. Discuss Pyrethrum and Neem as natural pesticides.
10. Discuss Pyrethrum and Tobacco as natural pesticides.
11. Explain the mode of action of natural drugs used as pesticides.

Short Answers: 2Marks

12. Name the natural drugs used as pesticides.
13. Write the mode of action of Neem as a pesticide.
14. Write the mode of action of Pyrethrum as a pesticide.
15. Write the mode of action of Tobacco as a pesticide.
16. Give the source and chemical constituents of Neem.
17. Give the source and chemical constituents of Pyrethrum.
18. Give the source and chemical constituents of Tobacco.
19. What is pest and pesticide? Give examples.
20. What are insecticides and rodenticides? Give examples.
21. Name the various mechanisms of action of natural pesticides with examples.
22. Write the mode of action of Neem as a pesticide.

Chapter 9: Detailed method of cultivation of crude drugs - Datura, Cassia cinnamom, Cinchona, Ephedra, Quassia, Clove, Fennel, Nux vomica, Rauwolfia, Liquorice

Long Essays: 10 Marks

1. Describe the method of cultivation and collection of Datura and Rauwolfia.
2. Describe the method of cultivation and collection of Cinchona and Fennel.
3. Describe the method of cultivation and collection of Cassia Cinnamon and Clove.
4. Describe the method of cultivation and collection of Nux vomica and Liquorice.
5. Describe the method of cultivation and collection of Cinchona and Clove.
6. Describe the method of cultivation and collection Raulwolfia and Cassia Cinnamon.
7. Describe the method of cultivation and collection of Datura and Fennel.
8. Describe the method of cultivation and collection of Cassia cinnamon & Nuxvomica.
9. Describe the cultivation and collection of Datura and Clove.
10. Describe the cultivation and collection of Cinchona and Fennel.

Short Essays: 5 Marks

11. Explain the method of cultivation and collection of Datura.
12. Explain the method of cultivation and collection of Rauwolfia.

13. Explain the method of cultivation and collection of Cinchona.
14. Explain the method of cultivation and collection of Fennel.
15. Explain the method of cultivation and collection of Cassia cinnamon.
16. Explain the method of cultivation and collection of Clove.
17. Explain the method of cultivation and collection of Nuxvomica.
18. Explain the method of cultivation and collection of Liquorice.
19. Explain the method of cultivation and collection of Ephedra
20. Explain the method of cultivation and collection of Quassia.

Short Answers: 2 Marks

21. Give the source, chemical constituents and uses of Datura.
22. Give the source, chemical constituents and uses of Rauwolfia.
23. Give the source, chemical constituents, and uses of Cinchona.
24. Give the source, chemical constituents and uses of Fennel.
25. Give the source, chemical constituents and uses of Cassia cinnamon.
26. Give the source, chemical constituents and uses of Clove.
27. Give the source, chemical constituents and uses of Nuxvomica.
28. Give the source, chemical constituents and uses of Liquorice.
29. Give the source, chemical constituents and uses of Ephedra.
30. Give the source, chemical constituents and uses of Quassia.

Chapter 10: Microscopical and powder Microscopical study of crude drugs - Datura, Cassia cinnamom, Cinchona, Ephedra, Quassia, Clove, Fennel, Nux vomica, Rauwolfia, Liquorice.

Long Essays: 10 Marks

1. Explain with a neat labelled diagram microscopy and powder microscopical characters ofDatura
2. Explain with a neat labelled diagram microscopy and powder microscopical characters of and Cassia cinnamon.
3. Explain with a neat labelled diagram microscopy and powder microscopical characters of Cinchona.
4. Explain with a neat labelled diagram microscopy and powder microscopical characters of Ephedra
5. Explain with a neat labelled diagram microscopy and powder microscopical characters of Quassia

6. Explain with a neat labelled diagram microscopy and powder microscopical characters of Fennel.
7. Explain with a neat labelled diagram microscopy and powder microscopical characters of Nuxvomica
8. Explain with a neat labelled diagram microscopy and powder microscopical characters of Rauwolfia.
9. Explain with a neat labelled diagram microscopy and powder microscopical characters of Liquorice.
10. Explain with a neat labelled diagram microscopy and powder microscopical characters of Clove.
11. Describe the anatomical features of Datura and Cassia Cinnamon with a neat labelled diagram.
12. Describe the anatomical features of Cinchona and Ephedra with a neat labelled diagram.
13. Describe the anatomical features of Quassia and Clove with a neat labelled diagram.
14. Describe the anatomical features of Fennel and Nuxvomica with a neat labelled diagram.
15. Describe the anatomical features of Rauwolfia and Liquorice with a neat labelled diagram.

Short Essays: 5 Marks

16. Explain with a neat diagram the anatomy of Datura.
17. Explain with a neat diagram the anatomy of Cassia Cinnamon.
18. Explain with a neat diagram the anatomy of Cinchona.
19. Explain with a neat diagram the anatomy of Ephedra.
20. Explain with a neat diagram the anatomy of Quassia.
21. Explain with a neat diagram the anatomy of Clove.
22. Explain with a neat diagram the anatomy of Fennel.
23. Explain with a neat diagram the anatomy of Nuxvomica.
24. Explain with a neat diagram the anatomy of Rauwolfia.
25. Explain with a neat diagram the anatomy of Liquorice.
26. Give the powder microscopical character for Datura and Cassia Cinnamon.
27. Give the powder microscopical character for Cinchona and Ephedra
28. Give the powder microscopical character for Quassia and Clove.
29. Give the powder microscopical character for Fennel and Nuxvomica.

30. Give the powder microscopical character for Rauwolfia and Liquorice.

Short Answers: 2 Marks

31. Give the source, constituents and uses of Datura.
32. Give the source, constituents and uses of Cassia Cinnamon.
33. Give the source, constituents and uses of Chinchona.
34. Give the source, constituents and uses of Ephedra.
35. Give the source, constituents and uses of Quassia.
36. Give the source, constituents and uses of Clove.
37. Give the source, constituents and uses of Fennel.
38. Give the source, constituents and uses of Nuxvomica.
39. Give the source, constituents and uses of Rauwolfia.
40. Give the source, constituents and uses of Liquorice.
41. Classify trichomes with examples.
42. Classify stomata with examples.
43. Give the functions of stomata and trichomes.
44. Name the shapes of bark with examples.
45. Name the drug containing plasmodesmata and give its source.
46. What is Parquetry arrangement? Give examples.
47. Give the source and uses of drug containing vittae.
48. What are cystoliths?
49. Give the powder microscopic characters of Datura
50. Give the powder microscopic characters of Cinnamon
51. Give the powder microscopic characters of Cinchona
52. Give the powder microscopic characters of Quassia
53. Give the powder microscopic characters of Fennel
54. Give the powder microscopic characters of Ephedra
55. Give the powder microscopic characters of Clove
56. Give the powder microscopic characters of Nux-vomica
57. Give the powder microscopic characters of Rauwolfia
58. Give the powder microscopic characters of Liquorice

Chapter 11: Study of plant and animal fibers used in surgical dressings and related products - Cotton, Wool, Jute, Silk, Hemp

Short Essays: 5 Marks

1. Classify fibers with examples and explain in detail about Jute.
2. Describe the plant fibers used in surgical dressing.
3. Describe the source, method of preparation and usesof absorbentCotton.
4. Describe the method of preparation of Silk and Wool.
5. Write a note on plant fibers and name two surgical dressings and their uses.
6. What are surgical dressings? Name plant fibers used in surgical dressings and add a note on cotton.
7. Define surgical dressings. Write the general properties and sources of plant fibers used as surgical dressings.
8. Define and classify fibers. Write the preparation of absorbent cotton.
9. Give the source, chemical constituents and uses of cotton. Write the preparation of absorbent cotton.
10. What are surgical dressings? Explain animal fibers used in surgical dressings.
11. Give the source, method of preparation and pharmaceutical uses of Silk and Jute.
12. Give the source, method of preparation and pharmaceutical uses of Silk and Wool

Short Answers: 2 Marks

13. Define plant and animal fibers with examples.
14. Give the chemical tests for plant fibers.
15. Give the chemical tests for animal fibers.
16. Give the chemical tests for Cotton.
17. Give the source, constituents and uses of Cotton.
18. Give the source, constituents and uses of Jute.
19. Give the source, constituents and uses of Silk
20. Give the source, constituents and uses of Hemp.
21. Give the method of preparation of Hemp.
22. Give the source, constituents and uses of Wool.

Chapter 12: Introduction and classification of carbohydrates and related products

Short Essays: 5 Marks

1. Define and classify carbohydrates with examples**.**
2. Explain the differences between gums and mucilage with examples.
3. Define carbohydrates. Give the differences between gums and mucilage.
4. What are carbohydrates? Give the general identification tests and classification of carbohydrates with examples.
5. Define and classify carbohydrates. Write the general tests for identification of carbohydrates.
6. Define simple and complex polysaccharides with examples. Give the general tests for the identification of reducing sugars.

Short Answers: 2 Marks

7. Give the identification tests for mucilage.
8. Give the source of any two drugs containing mucilage.
9. Give the source of any two drugs containing gums.
10. Define Swelling Index. Give its significances.
11. Write the general tests for identification of carbohydrates.
12. Classify carbohydrates with suitable examples.
13. What are polysaccharides? Give examples.
14. Give the pharmaceutical significance of polysaccharides.
15. Define carbohydrates. Give some examples for disaccharides.
16. What is swelling index?

Chapter 13: Biological source, method of production, chemical constituents, identification tests and uses of the following carbohydrates and related products i) Isapgol, ii) Guar gum, iii) Honey, iv) Acacia, v) Agar, vi) Tragacanth, vii) Pectin, viii) Sterculia gum, ix) Starch.

Short Essays: 5 Marks

1. Give the source, chemical constituents and tests for Acacia.
2. Write the source, chemical constituents, method of preparation and tests for Honey.
3. Explain the source, chemical constituentsand tests for Isapgol.
4. Write the source, chemical constituents, method of preparation and tests for Guar gum.

5. Write the source, chemical constituents and tests for Tragacanth.
6. Write the source, chemical constituents, method of preparation and tests for Pectin.
7. Write the source, chemical constituents and tests for Sterculia gum.
8. Write the source, method of preparation and tests for Agar.
9. Write the source, chemical constituents, method of preparation and tests for Starch.
10. Write the chemical tests used to differentiate Agar and Acacia.
11. Give the chemical tests used to differentiate Tragacanth and Acacia

Short Answers: 2 Marks

12. What is pectin? Name the sourceof Pectin.
13. Differentiate pure honey from adulterated honey by chemical tests.
14. Give the specific chemical tests for the identification of Tragacanth.
15. Write the chemical nature of Pectin.
16. Give the specific chemical tests for the identification chemical tests for Acacia.
17. Name the different drugs containing mucilage. How is mucilage tested?
18. Give the source of Pectin and Guar gum.
19. Chemical constituents and uses of Honey.
20. Chemical constituentsand uses of Acacia.
21. Chemical constituents and uses of Tragacanth.
22. Chemical constituents and uses of Agar.
23. Chemical constituents and uses of Sterculia.
24. Chemical constituents and uses of Pectin.
25. Chemical constituents and uses of Guar gum.
26. Write the chemical tests for identification of Pectin.
27. Write the chemical tests for identification of Sterculia.
28. Give the source and pharmaceutical uses of Acacia
29. Give the source and pharmaceutical uses of Agar.
30. Give the source and pharmaceutical uses of Sterculia.
31. Give the source and pharmaceutical uses of Tragacanth.
32. Give the source and pharmaceutical uses of Honey.
33. Give the source and pharmaceutical uses of Pectin.
34. Give the source and pharmaceutical uses of Guar gum.

Chapter 14: Definition sources, method extraction, chemistry and method of analysis of lipids

Short Essays: 5 Marks

1. Discuss in detail about chemical methods of analysis of fixed oils.
2. Define lipids. Explain the chemistry and different methods of extraction of lipids.
3. Define and outline the principle and significance of acid value and iodine value.
4. Define and outline the principle of saponification value and ester value and give its significances.
5. Define and classify lipids with the suitable examples. Give the differences between fixed oils, fats and waxes.
6. Explain the general method of extraction and refining of lipids.
7. Describe the chemical methods of analysis of lipids.
8. Define lipids. Explain the various parameters for analysis of lipids
9. Define Iodine value. Explain principle and procedure for the determination of Iodine value
10. Define acid value. Explain principle and procedure for the determination of acid value.
11. Define saponification value. Explain principle and procedure for the determination of saponification value.

Short Answers: 2Marks

12. Define saponification value. Give its significance.
13. Define acid value. Give its significance.
14. Define iodine value. Give its significance.
15. Define ester value. Give its significance.
16. Define saponification value and ester value.
17. Define ester value and hydroxyl value.
18. Define iodine value and saponification value.
19. Give the chemistry of lipids.
20. Name the various methods of analysis of lipids.
21. List out physical methods of analysis of lipids.
22. Define Polenski value and Reichert-meisle value.
23. Define rancidity and unsaponifiable matter.

Chapter 15: Detailed study of oils – i) Castor oil ii) Cod liver oil iii) Chaulmoogra oil iv) Olive oil v) Linseed oil vi) Sesame oil

Short Essays: 5 Marks

1. Explain the source, method of production and uses of Castor oil and Linseed oil.
2. Give the source, method of preparation and uses of Cod liver oil and Chaulmoogra oil.
3. Give the source, method of preparation and uses of Olive oil and Sesame oil.
4. Discuss the source, chemistry, method of preparation and uses of Castor oil.
5. Discuss the source, chemistry, method of preparation and uses of Chaulmoogra oil.
6. Source, chemical constituents, tests and uses of Chaulmoogra oil and Linseed oil.
7. Write the source, chemical constituents, uses and identification tests for Castor oil and Cod liver oil.
8. Write the source, chemical constituents, uses of Olive oil and Linseed oil.
9. Discuss the source, chemical constituents, uses and tests for the identification of Olive oil and Sesame oil.
10. Write the source, chemical constituents, uses of Olive oil and Castor oil.

Short Answers: 2Marks

11. Give the chemical constituents and uses of Chaulmoogra oil.
12. Give the chemical constituents and uses of Castor oil.
13. Give the chemical constituents and uses of Cod liver oil.
14. Give the chemical constituents and uses of Olive oil.
15. Give the chemical constituents and uses of Linseed oil.
16. Give the chemical constituents and uses of Sesame oil.
17. Explain the method of preparation of Castor oil.
18. Explain the method of preparation of Linseed oil.
19. Explain the method of preparation of Cod liver oil.
20. Explain the method of preparation of Chaulmoogra oil.
21. Explain the method of preparation of Olive oil.
22. Explain the method of preparation of Sesame oil.
23. Give the source and uses of the drug containing vitamin A.

24. Give source and chemical constituents of antileprotic drug

Chapter 16: Definition, classification, chemistryandmethod of analysis of proteins

Short Essays: 5 Marks

1. Define and classify proteins with examples.
2. Define proteins. Add a note on chemistry and method of analysis of proteins.
3. Write the chemistry and chemical tests for proteins.
4. Write an essay on the classification and chemistry of proteins.
5. Define and classify proteins. Discuss about method of analysis of proteins.
6. Define proteins. Write in detail about properties and method of analysis of proteins.

Short Answers: 2 Marks

7. Define proteins and give examples.
8. Give the chemical tests for protein.
9. List out different methods of analysis proteins.
10. Give the identification tests for proteins.
11. Classify proteins with examples.
12. Give the general properties of proteins.
13. Give the chemistry of proteins.
14. What are derived proteins and give examples.
15. What are conjugated proteins and give suitable examples.
16. What is gelatin and write its uses.
17. Write the pharmaceutical importance of proteins.

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