

Examination questions- subquestions - Pharmacognosy 2

1. Classification, characterization of Alkaloids;
2. Alkaloids distribution in plants;
3. Methods of analysis of Alkaloids, their medical importance;
4. Medicinal Plants containing acyclic and with exocyclic nitrogen alkaloids, alkaloids with condensed pyrrolidine and piperidine rings, pyrrolidine and pyrrolizidine alkaloids;
5. Morphological description, chemical constituents and medicinal use of Ephedra equisetina, Colchicum speciosum, Atropa belladonna, Senecio rhombifolia, Hyoscyamus niger and species of Scopolia.
6. Medicinal Plants containing quinolizidine and isoquinoline alkaloids;
7. Morphological description, chemical constituents and medicinal use of species of Thermopsis, Securinega, Nuphar luteum, Glaucium flavum, Berberis vulgaris, Chelidonium majus, Stephania glabra, and natural sources of galanthamine.
8. Medicinal Plants containing derivatives of quinoline and indole alkaloids;
9. Morphological description, chemical constituents and medicinal use of Chinchona, Passiflora, Rauwolfia, Secale cornutum, Strichnos nux vomica, and species of vinca.
10. Plants containing purine and steroid alkaloids;
11. Morphological description, chemical constituents and medicinal use of Thea chinensis, Coffea, Theobrome, Cocca, Delphynium, Solanum.
12. Phenolic compounds, classification.
13. Medicinal plants containing phenols;
14. Morphological description, chemical constituents and medicinal use of Arctostaphylos, Vaccinium vitis idea, Driopteris Filix-mas, Rhodiola rosea;
15. Classification, characterization of Coumarines, distribution in plants,
16. Methods of analysis of Coumarines and medical importance.
17. Medicinal plants containing coumarines;
18. Morphological description, chemical constituents and medicinal use of Melilotus officinalis, Aesculus hypocaustanum, Ammi majus, Psoralea drupacea, Pastinaca sativa.
19. Classification, characterization of Flavonoids;
20. Flavonoids distribution in plants
21. Methods of analysis of flavonoids and medical importance.
22. Medicinal plants containing Flavonoids;
23. Morphological description, chemical constituents and medicinal use of species of Crategus, Polygonum and Leonurus.
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24. Medicinal plants containing Flavonoids: Helichrysum arenarium, Centaurea cyanus, species of Viola, Centaurea cyanus, their morphological description, chemical constituents and medicinal use .
25. Compounds and plants with P-vitamin activity.
26. Medicinal plants containing chromones and lignans: Schisandra chinensis, Elleuterococcus, Podophyllum, Anethum, Ammi visnaga. Their morphological description, chemical constituents and medicinal use;
27. Classification, characterization of anthracene derivatives, distribution in plants;
28. Methods of analysis of Anthracene derivatives, their application in medicine.
29. Morphological description, chemical constituents and medicinal use of species of

Frangula.

30. Medicinal plants containing anthracene derivatives: *Rumex confertum*, *Rheum palmatum*, Species of *Senna*, *Aloe*, *Rubia* and *Hypericum*. Their Morphological description, chemical constituents and medicinal use .
31. Classification, characterization of Tannins, distribution in plants, methods of analysis, application in medicine.
32. Medicinal plants containing Tannins. Sources of tannins;
33. Morphological description, chemical constituents and medicinal use of *Cotinus coggygia*, *Rhus corriaria*;
34. Morphological description, chemical constituents and medicinal use of species of *Quercus*, *Polygonum bistortae*;
35. Phytochemical analysis of Alkaloid containing medicinal plant material, Extraction, identification reactions.
36. Macroscopic and microscopic analysis of alkaloid containing medicinal plant material: black henbane, deadly nightshade and devil`s trumpet leaves.
37. Macroscopic and microscopic analysis of medicinal plants containing quinolizidine and isoquinoline alkaloids: Species of *Thermopsis*, *Securinega*, *Chelidonium majus*;
38. Macroscopic and microscopic analysis of *Securinega* and celandine leaves.
39. Macroscopic and microscopic analysis of quinoline and indole alkaloids containing MPM, lesser periwinkle and passionflower leaves.
40. Identification reaction on *Cinchona* bark.
41. Macroscopic and microscopic analysis of purine and steroidal alkaloids containing MPM: *Thea chinensis*, *Coffea*
42. Macroscopic and microscopic analysis tea leaf and *veratrum* roots.
43. Macroscopic, microscopic and phytochemical analysis of simple phenols containing MPM, Bearberry leaf and male fern.
44. Macroscopic, microscopic and phytochemical analysis of melilot herb.
45. Macroscopic, microscopic and phytochemical analysis of flavonoids containing MPM *polygonum* species.
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46. Macroscopic and microscopic analysis of flavonoids containing MPM : motherwort and st. john`s wort herb.
47. Macroscopic, microscopic and phytochemical analysis of Anthracene glycoside containing MPM - Alder backthorn.
48. Macroscopic and microscopic analysis of anathracene derivatives containing medicinal plant material – senna leaves and *rubia* root.
49. Macroscopic, microscopic and phytochemical analysis of Tannins containing medicinal plant material - *Quercus robur*.
50. Macroscopic and microscopic analysis of Tannins containing MPM : *Cotinus coggygia*, *Rhus corriaria*, *Polygonum bistorta*.