

**MODULE-1**



# QUESTION BANK

# PHARMACOGNOSY

Based on Latest Syllabus of

**GPAT | NIPER | PHARMACIST | DRUG INSPECTOR | IIT-BHU**

## Features

- \* Based on latest syllabus
- \* Chapter wise & Section wise question
- \* All topic covered
- \* Designed by competitive exam experts
- \* Important for all Pharma Exam





# PHARMACOGNOSY

A Competitive Examination Book

MCQS Book

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SAMPLE

## 1

# Introduction of Pharmacognosy

1. Who coined the term Pharmacognosy  
 (a) Hippocrates      (b) Pelletier      (c) Aristotle      (d) Seydler
2. Name the Scientist who made 50 groups of 10 herbs  
 (a) Charaka      (b) Sushrutha      (c) Swede Linnaeus      (d) Sertuerner
3. Who was the first pharmacist described the different methods of preparation containing active constituents of crude drugs  
 (a) Galen      (b) Seydler      (c) Sertuerner      (d) Aristotle
4. Well known treatises in Ayurveda are  
 (a) Charaka Samhita      (b) Sushrutha Samhita      (c) Both (a) and (b)      (d) Yoga sutras
5. Name the oldest known herbal which is written by Shen Nung  
 (a) Pen -t' sao      (b) Breverton's      (c) Volker scheid      (d) All of the above
6. Scientist who isolated morphine from opium  
 (a) Serturne      (b) Galen      (c) Seydler      (d) Pelletier
7. The non-flowering spore bearing plant without roots are  
 (a) Alginic acid      (b) Pteridophytes      (c) Bryophyte      (d) Agar
8. Which of the following scientist introduced the binomial system for naming plants  
 (a) W. Eichler      (b) G. Mendel's      (c) Greenish and Collin      (d) Carolus Linnaeus
9. "The anatomical atlas of crude drugs" was published by \_\_\_\_\_ in 1865  
 (a) Berg      (b) Voehl      (c) Tschhirch      (d) Collin
10. An anatomical atlas of powdered vegetable drugs was complied in 1904 by which scientist  
 (a) Greenish and collin      (b) Bentham and hooker      (c) Engler and Prandtl      (d) Voehl and tschirch
11. Who is consider as a father of surgery  
 (a) Dioscorides      (b) Galen      (c) Aristotle      (d) Sushrut
12. Galen described various methods are  
 (a) Method for identification      (b) Formulation of crude drug  
 (c) Both (a) and (b)      (d) Study in plant kingdom
13. The importance of extraction method and alcohol as an extractant was reported by  
 (a) Le'mery      (b) William withering      (c) Pelletier      (d) Neumann
14. Match the following drugs isolated in which year  

|  |   |            |  |   |           |
|--|---|------------|--|---|-----------|
| [P] Strychnine                                 | - | [i] 1819   | [Q] Quinine                                    | - | [ii] 1875 |
| [R] Cocaine                                    | - | [iii] 1820 | [S] Pilocarpine                                | - | [iv] 1860 |
| (a) [Q]- (ii), [R]- (i), [S]- (iii), [P]- (iv) |   |            | (b) [Q]- (iv), [R]- (ii), [S]- (iii), [P]- (i) |   |           |
| (c) [P]- (i), [Q]- (iii), [R]- (iv), [S]- (ii) |   |            | (d) [Q]- (i), [R]- (iii), [S]- (ii), [P]- (iv) |   |           |
15. In 1852 the process of extraction of alkaloid was developed by  
 (a) Posselt and Reiman      (b) Stass and otto  
 (c) Hardy and gallows      (d) William withering

152. A Match the following Precursor with their Product

- |  |  |
|--|--|
| [P] Shikimic acid                          | (i) Tropane alkaloid                       |
| [Q] Acetate                                | (ii) Aldehyde glycoside                    |
| [R] Squalene                               | (iii) Digitoxigenin                        |
| [S] Ornithine                              | (iv) Steroid                               |
| (a) [P]-(ii), [Q]-(i), [R]-(iii), [S]-(iv) | (b) [P]-(iii), [Q]-(iv), [R]-(ii), [S]-(i) |
| (c) [P]-(ii), [Q]-(iv), [R]-(iii), [S]-(i) | (d) [P]-(i), [Q]-(iv), [R]-(iii), [S]-(ii) |

153. In shikimic acid pathway, "shikimic acid" is

- |                             |                       |
|-----------------------------|-----------------------|
| (a) A starting material     | (b) An end product    |
| (c) An intermediate product | (d) None of the above |

154. Quinoline alkaloids are biosynthesized via which one of the following pathway

- |                               |                                   |
|-------------------------------|-----------------------------------|
| (a) Shikimic acid - Tyrosine  | (b) Shikimic acid - Tryptophan    |
| (c) Shikimic acid - Cathinone | (d) Shikimic acid - Phenylalanine |

155. Biosynthesis of alizarin follows

- |                           |                          |
|---------------------------|--------------------------|
| (a) Shikimic acid pathway | (b) Malonic acid pathway |
| (c) Mevalonic acid        | (d) Both (a)and (C)      |

156. The precursor of strychnine and brucine alkaloids biosynthesis is

- |                               |                   |
|-------------------------------|-------------------|
| (a) Tyrosine                  | (b) Phenylalanine |
| (c) Tryptophan and Tryptamine | (d) Ornithine     |

157. The elucidation of biosynthetic pathways in plant for the production of various plant metabolites including phytopharmaceutical has been extensively examined by means of isotopically labeled precursors. This technique is called as

- |                      |                        |
|----------------------|------------------------|
| (a) Biological assay | (b) Elemental analysis |
| (c) Radioimmunoassay | (d) Tracer technique   |

158. Choose the correct key intermediate for the biosynthesis of C<sub>6</sub>-C<sub>3</sub> units, which serves as a precursor for the biosynthesis of Amino acids

- |                    |                        |
|--------------------|------------------------|
| (a) Shikimic acid  | (b) Dehydroquinic acid |
| (c) Mevalonic acid | (d) Both (a) and (c)   |

159. Clavine nucleus is biosynthesized from

- |  |  |
|--|--|
| (a) Tryptophan + Isopentenyl + Pyrophosphate | (b) Tryptophan+ Phenyl + Pyrophosphate |
| (c) Tyrosine + Isopentenyl Pyrophosphate     | (d) Tyrosine + dimethyl Pyrophosphate  |

160. Isoprenoids can be biosynthesized by

- |                            |                          |
|----------------------------|--------------------------|
| (a) Shikimic acid pathway  | (b) Malonic acid pathway |
| (c) Mevalonic acid pathway | (d) Both (a) and (b)     |



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# 3

# Drugs Containing Alkaloidal

1. The term alkaloid was proposed by
  - (a) Aristotle in 1800
  - (b) Galileo in 1800
  - (c) W. Meissner in 1819
  - (d) Newton in 1810
2. Mostly the alkaloids are solid, but some are liquid and volatile in nature, such as
  - (a) Coniine
  - (b) Nicotine
  - (c) Sparteine
  - (d) All of the above
3. The alkaloid that does not have heterocyclic ring with Nitrogen but derived from Amino acid, is called
  - (a) Proto alkaloid
  - (b) True alkaloid
  - (c) Pseudo alkaloid
  - (d) None of the above
4. Which one of the following is optically inactive Alkaloid
  - (a) Codeine
  - (b) Morphine
  - (c) Papaverine
  - (d) Saponin
5. Which of the following is a True alkaloid
  - (a) Aconite
  - (b) Atropine
  - (c) Caffeine
  - (d) Conessine
6. Imidazole ring present in
  - (a) Pilocarpine
  - (b) Brucine
  - (c) Strychnine
  - (d) Caffeine
7. Some alkaloids are coloured in nature, select the CORRECT combination of drugs
  - (a) Betanidin and Conessine
  - (b) Barberine and Nicotine
  - (c) Barberine and Sanguinarine
  - (d) Nicotine and Sanguinarine
8. The Dragendorff's reagent which is used for the detection of Alkaloids, is chemically
  - (a) Saturated Picric acid
  - (b) Potassium mercuric iodide
  - (c) Potassium bismuth iodide
  - (d) Iodine in Potassium iodide
9. Alkaloids with Mayer's reagent gives
  - (a) Black ppt
  - (b) Brown ppt
  - (c) Cream ppt
  - (d) Yellow ppt
10. The chemical behaviour of Morphine alkaloid is
  - (a) Neutral
  - (b) Acidic
  - (c) Basic
  - (d) Amphoteric
11. Hager's reagent is
  - (a) Mercuric iodide solution
  - (b) Saturated solution of Picric acid
  - (c) Potassium bismuth iodide solution
  - (d) Potassium tri-iodide solution
12. Alkaloids are NOT precipitated by
  - (a) Potassium Mercury iodide solution
  - (b) Potassium Bismuth iodide solution
  - (c) Picric acid solution
  - (d) Potassium hydroxide solution
13. Alkaloids with Dragendorff's reagent gives
  - (a) Reddish brown or orange red ppt
  - (b) Yellow coloured ppt
  - (c) Cream coloured ppt
  - (d) None of the above
14. Which of the following alkaloid is an example of primary amine
  - (a) Mescaline
  - (b) Ephedrine
  - (c) Atropine
  - (d) Tubocurarine



# 4

# Drug Containing Glycosides

1. Glycosides are extracted by which method
  - (a) Stas - otto method
  - (b) Solvent extraction method
  - (c) Expression
  - (d) None of the above
2. The powder drug is extracted by continuous hot percolation using soxhlet apparatus with alcohol and other solvents. What should be the temperature for extraction of thermolabile glycosides
  - (a) Below 35 °C
  - (b) Below 50 °C
  - (c) Below 45 °C
  - (d) Below 25 °C
3. Why lead acetate added during extraction of glycosides by STASS-OTTO method
  - (a) To remove tannin
  - (b) To remove resins
  - (c) To remove
  - (d) To remove resins
4. On enzymatic or acid hydrolysis of Glycosides sugar and non-sugar part is
  - (a) Genin and Ose
  - (b) Ose and Genin
  - (c) Geninin and Ose
  - (d) None of the above
5. The glycone portion of glycoside responsible for
  - (a) Chemical and therapeutic property
  - (b) For potency
  - (c) Facilitate the absorption of glycoside
  - (d) Transportation of aglycon portion at the site of action
6. Varities of rhubarb rhizome available in the market is
  - (a) Shensi type
  - (b) Canton type
  - (c) High dried rhubarb
  - (d) All of th above
7. Aglycone part is soluble in
  - (a) Water
  - (b) Dil. Alcohol
  - (c) Organic solvent
  - (d) None of the above
8. In 'C'-Glycosides, the sugar moiety directly linked to \_\_\_\_\_ aglycone part
  - (a) Carbon atom
  - (b) Oxygen atom
  - (c) Sulphur atom
  - (d) Nitrogen atom
9. 'C'-Glycosides are also called as..... type of glycosides
  - (a) Aloin
  - (b) Sinigrin
  - (c) Senna
  - (d) Nucleosides
10. Example of Antidiabetic glycosides are
  - (a) Gymnema
  - (b) Psoralea
  - (c) Ammi
  - (d) Gokhru
11. Weight lowering property is shows by which bitter glycoside
  - (a) Madhunashini
  - (b) Quassia
  - (c) Chirata
  - (d) Gentian
12. Which type of foam produce after shaking of gymnema drug with water and on additionof dil hydrochloric acid
  - (a) Copious foam
  - (b) Light foam
  - (c) Cloudy foam
  - (d) Milky foam
13. Which of the following pair is NOT TRUE matched
  - (a) Phenol glycosides - Bear berry
  - (b) Aldehyde glycosides - Vanilla

## PHARMACOGNOSY

96. Which is NOT an acidic hydrolysis product of Dioscin  
 (a) Diosgenin      (b) Fructose      (c) Rhamnose      (d) Glucose
97. A drug X having synthetic precursor of sex hormone, Oral contraceptives and corticosteroid used in rheumatic arthritis treatment. Dried tuber is used as biological source identify the drug  
 (a) Ginseng      (b) Yam      (c) Mulethi      (d) Musaber
98. The drug which root shows morphology like anthropomorphic with immunomodulatory action  
 (a) Dioscorea      (b) Ginseng      (c) Liquorice      (d) Senega
99. Synonyms of Ginseng is  
 (a) Ginger      (b) Panax      (c) Polygala      (d) None of the above
100. PANAXADIOL is a constituent of  
 (a) Ginger      (b) Ginseng      (c) Jatamansi      (d) Pepper
101. Ginsenosides on hydrolysis gives aglycone portion called  
 (a) Dammarol      (b) Panaxadiol      (c) Panaxatriol      (d) Olenolic acid
102. Rhizome of quillaia represent  
 (a) Cork cell      (b) Phellogen      (c) Periderm      (d) Vascular cambium
103. Which responsible for acrid taste in Quillaia bark  
 (a) Quillaia sapotoxin      (b) Quillaic acid      (c) Liquorice      (d) None of the above
104. The drug of which outer surface of bark contain reddish brown rhizome and patches of dead secondary phloem are also present  
 (a) Quillaia bark      (b) Mulethi      (c) Rattle snake root      (d) Rheumatism root
105. Gokhru contain trace of alkaloid are  
 (a) Harmine and Harman      (b) Diosgenin and Ruscogenin      (c) Tribuloside      (d) Kampferol
106. The fruit which is used as diuretic and used in ayurvedic preparation  
 (a) Gokhru      (b) Shatavari      (c) Carbanoloxone      (d) Safed musali
107. When the thin section of liquorice drug is treated with 80%  $H_2SO_4$  it shows  
 (a) Yellow Colour      (b) Brown Colour      (c) Pinkish red Colour      (d) Blue Colour
108. Unpeeled root of Liquorice is bitter in taste. It is due to the presence of  
 (a) Amerogentin      (b) Glycyramarin      (c) Cascrogentin      (d) Glycyrrhizin
109. Name the drug which shows mineralocorticoid activity which is oleandane derivative prepared from glycyrrhiza is  
 (a) Carbenoxolone      (b)  $\beta$ -Santalool      (c) Senegin      (d) Harman and harmin
110. The drug which potentiate the action of senna  
 (a) Liquorice powder      (b) Senega      (c) Sarsaparilla      (d) Honey
111. Drug which contains a band of enlarged phloem giving rise to keel is the feature of  
 (a) Rattlesnake root      (b) Yast      (c) Panama wood      (d) Ninjin
112. A person is suffering from chronic bronchitis. Drug which should be given as expectorant in chronic bronchitis is  
 (a) Senega      (b) Dioscorea      (c) Senna      (d) Gokhru
113. Senega has first sweet and then acrid taste with characteristic odour of  
 (a) Methyl salicylate      (b) Senegin      (c) Polygallic acid      (d) Polygalitol
114. Sweet taste of Senega is due to  
 (a) Methyl salicylate      (b) Senegin      (c) Polygallic acid      (d) polygalitol

## **TRADITIONAL HERBAL DRUGS**

# ANSWER KEY

## INTRODUCTION OF PHARMACOGNOCY

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1-d   | 2-a   | 3-a   | 4-c   | 5-a   | 6-a   | 7-c   | 8-d   | 9-a   | 10-a  |
| 11-d  | 12-c  | 13-a  | 14-c  | 15-b  | 16-d  | 17-a  | 18-d  | 19-c  | 20-c  |
| 21-a  | 22-d  | 23-d  | 24-c  | 25-a  | 26-d  | 27-d  | 28-c  | 29-c  | 30-c  |
| 31-a  | 32-b  | 33-c  | 34-c  | 35-d  | 36-a  | 37-d  | 38-b  | 39-c  | 40-a  |
| 41-b  | 42-d  | 43-b  | 44-b  | 45-d  | 46-d  | 47-b  | 48-d  | 49-c  | 50-a  |
| 51-b  | 52-b  | 53-d  | 54-a  | 55-a  | 56-a  | 57-b  | 58-a  | 59-d  | 60-b  |
| 61-d  | 62-b  | 63-a  | 64-b  | 65-d  | 66-c  | 67-d  | 68-c  | 69-b  | 70-a  |
| 71-d  | 72-d  | 73-d  | 74-d  | 75-d  | 76-b  | 77-a  | 78-a  | 79-a  | 80-d  |
| 81-b  | 82-d  | 83-a  | 84-d  | 85-c  | 86-c  | 87-d  | 88-b  | 89-d  | 90--c |
| 91-b  | 92-b  | 93-b  | 94-d  | 95-a  | 96-c  | 97-d  | 98-b  | 99-c  | 100-a |
| 101-a | 102-a | 103-a | 104-d | 105-d | 106-c | 107-a | 108-d | 109-a | 110-c |
| 111-a | 112-c | 113-d | 114-a | 115-b | 116-b | 117-d | 118-a | 119-c | 120-b |
| 121-a | 122-c | 123-b | 124-a | 125-a | 126-a | 127-b | 128-a | 129-a | 130-c |
| 131-d | 132-a | 133-d | 134-a | 135-b | 136-d | 137-d | 138-a | 139-d | 140-c |
| 141-a | 142-c | 143-c | 144-c | 145-a | 146-d | 147-c | 148-d | 149-d | 150-c |
| 151-c | 152-c | 153-c | 154-b | 155-d | 156-c | 157-d | 158-a | 159-a | 160-c |

## RESIN, TANNIN, CARBOHYDRATES-LIPID, ENZYMES, FIBRES

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1-a   | 2-d   | 3-b   | 4-c   | 5-c   | 6-d   | 7-b   | 8-b   | 9-d   | 10-d  |
| 11-b  | 12-a  | 13-d  | 14-a  | 15-a  | 16-a  | 17-a  | 18-a  | 19-d  | 20-d  |
| 21-a  | 22-b  | 23-a  | 24-d  | 25-b  | 26-d  | 27-a  | 28-a  | 29-a  | 30-a  |
| 31-d  | 32-b  | 33-a  | 34-c  | 35-d  | 36-b  | 37-d  | 38-c  | 39-d  | 40-a  |
| 41-a  | 42-d  | 43-c  | 44-d  | 45-a  | 46-d  | 47-b  | 48-b  | 49-a  | 50-b  |
| 51-c  | 52-a  | 53-d  | 54-d  | 55-b  | 56-c  | 57-a  | 58-d  | 59-b  | 60-a  |
| 61-c  | 62-a  | 63-b  | 64-c  | 65-b  | 66-c  | 67-d  | 68-b  | 69-d  | 70-c  |
| 71-b  | 72-d  | 73-b  | 74-d  | 75-c  | 76-b  | 77-a  | 78-c  | 79-a  | 80-c  |
| 81-a  | 82-a  | 83-a  | 84-a  | 85-a  | 86-b  | 87-a  | 88-c  | 89-b  | 90--c |
| 91-a  | 92-a  | 93-b  | 94-a  | 95-a  | 96-a  | 97-d  | 98-a  | 99-d  | 100-d |
| 101-c | 102-d | 103-a | 104-c | 105-b | 106-c | 107-a | 108-b | 109-c | 110-d |
| 111-b | 112-a | 113-a | 114-d | 115-b | 116-a | 117-a | 118-c | 119-c | 120-d |
| 121-d | 122-d | 123-b | 124-a | 125-c | 126-b | 127-a | 128-c | 129-a | 130-d |
| 131-a | 132-a | 133-c | 134-c | 135-c | 136-a | 137-a | 138-c | 139-b | 140-d |
| 141-  | 142-a | 143-d | 144-b | 145-a | 146-c | 147-b | 148-b | 149-d | 150-d |
| 151-a | 152-a | 153-c | 154-b | 155-d | 156-a | 157-c | 158-a | 159-c | 160-d |



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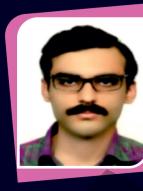
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