1.The term 'Pharmacognosy' was first introduced by

(a) Pelletier

(b) Sertuerner

(c) Schmidt

(d) Seydler

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- **Pharmacognosy Term –**
- **First used by *Johann Adam Schmidt* in his manuscript *Lehrbuch der Materia Medica* in 1811.**

- **First coined-**
- ***C.A. Seydler* (Germen scientist) by in 1815 in the title of his work**

“Analecta Pharmacognostica”.

2. Which of the following traditional medicines is a semisolid dosage form

(a) Avaleha
(b) Asava
(c) Vatika
(d) Sattva

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(a) Avaleha

(b) Asava

(c) Vatika

(d) Sattva

Classification of Ayurvedic Dosage Form

Classification	Dosage Forms
Solid Dosage Form	Pills, Gutika, Vatika
Semi-solid Dosage Form	Avleha, Paka, Lepa, Ghrta
Liquid Dosage Form	Asava, Arista, Arka, Taila, Dravaka
Powder Dosage Form	Bhyasma, Satva, Mandura, Pisti, Parpati, Lavana, Kshara, Churna

3. Drug which is NOT belongs to fruit class

(a) Ergot
(b) Fennel
(c) Coriander
(d) Dill

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(c) Coriander

(d) Dill

Morphological Classification

- Here, the crude drugs are grouped according to the part of the plant or animal represented into organized and unorganized drugs.

- Some of the examples of crude drugs under this type of classification are as:

1. Seeds Isabgol, Castor
2. Leaves Senna, Eucalyptus,
3. Bark Cinchona, Cinnamon
4. Woods Sandalwood, Quassia
5. Roots Rauwolfia, Jalap
6. Rhizomes Turmeric, Ginger
7. Flowers Clove, Saffron
8. Fruits Fennel, Coriander
9. Entire drugs- Ephedra, Belladonna
10. Dried latex – Opium, Papain
11. Dried extracts – Gelatin, Agar
12. Dried juices – Aloes

4. Liquorice, Ipecacuanha and Vasaka possess similar pharmacological effect to that of

(a) Bronchodilator
(b) Antitussive
(c) Expectorant
(d) Laxative

4. Liquorice, Ipecacuanha and Vasaka possess similar pharmacological effect to that of

(a) Bronchodilator

(b) Antitussive

(c) Expectorant

(d) Laxative

Drugs Acting on Respiratory System

- Expectorants – Liquorice, Vasaka, Ipecac
- Antitussives – Opium (Codeine , Noscapine)
- Bronchodilators –Ephedra, Tea (Theophylline)

Drugs Acting on Cardio-vascular System (CVS)

- Cardiotonics – Digitalis, Squill
- Cardiac depressant – Cinchona (quinidine)
- Vasoconstrictors – Ergot (ergotamine), Ephdra
- Antihypertensive - Rauwolfia

5. The glandular trichome which contains active phytoconstituents of the plant is

(a) Belladonna
(b) Cannabis
(c) Datura
(d) Ergot

5. The glandular trichome which contains active phytoconstituents of the plant is

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(b) Cannabis

(c) Datura

(d) Ergot

Trichomes

Types of Trichomes	Subtypes		Examples
Covering trichomes	Unicellular Trichomes	Warty trichomes	Damiana, Senna
		longitudinally striated trichomes	Lobelia
		flattened and twisted trichomes	Cotton
		Lignified trichomes	Nux vomica, strophanthus
		conical trichomes	Tea
		curved, conical trichomes	Cannabis
		stellate trichomes	Deutezia scabra

Cannabis	**Ganja**	**Cannabis sativa (Cannabinaceae)**	**Resin, tetrahydro-cannabinol**	**Rheumatiod arthritis**

6. Who is regarded as the father of surgery in ancient India

(a) Sushrutha

(b) Charaka

(c) Vasavadatta

(d) Dhanvantari

6. Who is regarded as the father of surgery in ancient India

(a) Sushrutha

(b) Charaka

(c) Vasavadatta

(d) Dhanvantari

- Charaka Samhita- made 50 groups of 10 herbs for illness, according to physician's need.
- Sushrutha Samhita- arranged 760 herbs in 7 distinct sets based on their common properties. "Father of Indian Medicine".
- The oldest written book- Rig ved and Atharva ved represent medical knowledge and practices that formed the basis of the Ayurveda system.

7. Dragendorff's reagent is employed for the identification of

(a) Carbohydrates

(b) Alkaloids

(c) Flavonoids

(d) Proteins

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(a) Carbohydrates

(b) Alkaloids

(c) Flavonoids

(d) Proteins

Chemical Test for Alkaloids

S. No	Reagent	Observation
1.	Mayer's Reagent (Potassium mercuric iodide solution)	**Creamy** precipitate
2.	Wagner's reagent (Potassium triiodide solution)	**Reddish brown** precipitate
3.	**Dragendroff's reagent** (Potassium bismuth iodide solution)	**Reddish brown** precipitate
4.	**Hager's reagent** (Picric acid)	**Yellow** precipitate
5.	**Sonnenschein's reagent** (Phosphomolybdic acid)	Precipitate
6.	**Scheibler's reagent** (Phosphotungstic acid)	Precipitate

8. Chemically Mayer's reagent is

(a) Potassium mercuric iodide

(b) Potassium bismuth iodide

(c) Iodine solution

(d) Picric acid

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6.	**Scheibler's reagent** (Phosphotungstic acid)	Precipitate

9. Vitali-Morin test is used to identify

(a) Indole alkaloids

(b) Isoquinoline alkaloids

(c) Tropane alkaloids

(d) Purine alkaloids

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(a) Indole alkaloids

(b) Isoquinoline alkaloids

(c) Tropane alkaloids

(d) Purine alkaloids

Chemical test

Vitali-morin Test

Tropane alkaloids + fuming nitric acid

↓

Evaporate to dry at 100 °C + **3% KOH** in methanol

↓

Voilet Colours appearance **(due to tropane derivatives)**

10. Belladonna herbs belongs to the chemical class of

(a) Indole alkaloids

(b) Isoquinoline alkaloids

(c) Tropane alkaloids

(d) Quinazoline alkaloids

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(a) Indole alkaloids

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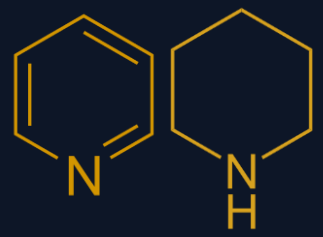
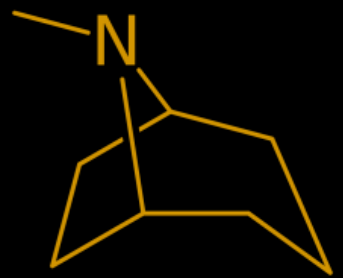
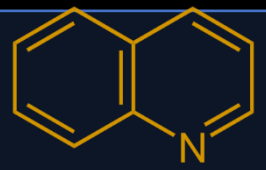
Alkaloids containing Drugs

S. No.	Class	Structure	Example
1.	Pyridine – Piperidine alkaloids		Tobacco, Areca, Lobelia
2.	Tropane alkaloids		Belladona, Datura, Hyoscyamus, Stramonium, Dubosia, Coca leaves
3.	Quinoline alkaloids		Cinchona, Camptotheca

11. Vincristine is a type of alkaloid

(a) Indole

(b) Phenanthrene

(c) Benzyl isoquinoline

(d) Triterpenoid

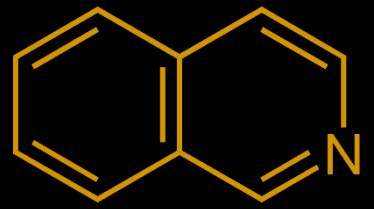
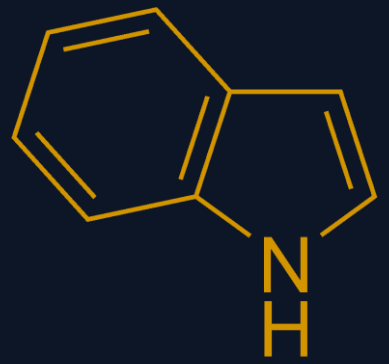
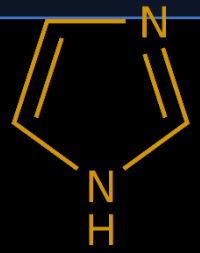
11. Vincristine is a type of alkaloid

(a) Indole

(b) Phenanthrene

(c) Benzyl isoquinoline

(d) Triterpenoid

Isoquinoline alkaloids		**Opium,** **Ipecac,** **Curare,** **Berberis** **Sanguniria**
Indole alkaloids		Ergot, Nux vomica, Rauwolfia, Vinca Catharanthus, Physostigma
Imidazole alkaloids		Pilocarpus

12. The composition of Froehde's reagent is

(a) Ammonium molybdate + Sulphuric acid
(b) Potassium iodide + Sulphuric acid
(c) Bismuth iodide + Sulphuric acid
(d) Ferric chloride + Sulphuric acid

12. The composition of Froehde's reagent is

(a) Ammonium molybdate + Sulphuric acid

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(d) Ferric chloride + Sulphuric acid

Froehde’s Reagent

The Froehde reagent is used as a simple spot-test to presumptively identify alkaloids, especially opioids, as well as other compounds. It is composed of a mixture of molybdic acid or a molybdate salt dissolved in hot, concentrated sulfuric acid, which is then dripped onto the substance being tested.

13. Ergot contains which type of Alkaloids

(a) Indole

(b) Modified diterpenes

(c) Purine

(d) Isoquinoline

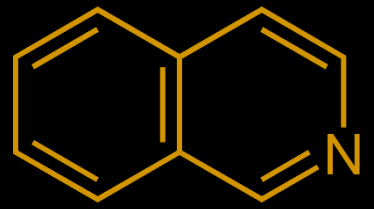
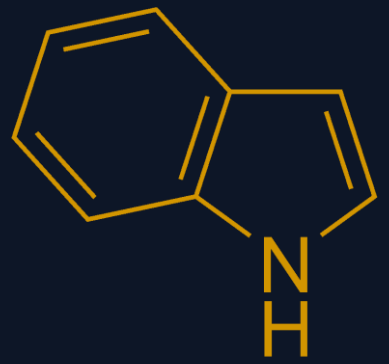
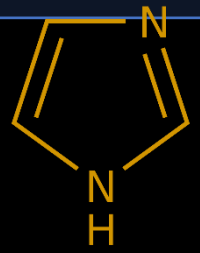
13. Ergot contains which type of Alkaloids

(a) Indole

(b) Modified diterpenes

(c) Purine

(d) Isoquinoline

Isoquinoline alkaloids		**Opium,** **Ipecac,** **Curare,** **Berberis** **Sanguniria**
Indole alkaloids		Ergot, Nux vomica, Rauwolfia, Vinca Catharanthus, Physostigma
Imidazole alkaloids		Pilocarpus

14. Which is the right reagent for of Ergot alkaloids

(a) Van Urk

(b) Fehling I and II

(c) Iron-III-chloride identification

(d) Phloroglucinol in hydrochloric acid

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(a) Van Urk

(b) Fehling I and II

(c) Iron-III-chloride identification

(d) Phloroglucinol in hydrochloric acid

Chemical Test for Ergot

(1) Van-Urk's Test –

Ergot powder + **p-dimethyl aminobezaldehyde** ⟶ **Blue Colour**

(2) Ergometrine + **Water** ⟶ **Blue fluorescence.**

15. Glycoside present in Nux vomica

(a) Strychnine

(b) Loganin

(c) Ecgonine

(d) Quinovin

15. Glycoside present in Nux vomica

(a) Strychnine

(b) Loganin

(c) Ecgonine

(d) Quinovin

Chemical constituents of Nux Vomica

- Seed contain **1.5 to 5%** bitter **indole alkaloids**
  Chief constituents are
  Strychnine - **More** active, less bitter
  Brucine - **Less** active, more bitter
- Seed also contain – **Chlorogenic acid** and glycoside **– loganin**

16. What is synonym of rauwolfia

(a) Henbane

(b) Deadly nightshade leaf

(c) Green hellebore

(d) Indian snake root

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(a) Henbane

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(d) Indian snake root

RAUWOLFIA

Synonym: **Chhotachand, Sarpgandha.**

Biological source: Rauwolfia is obtained from **dried roots** and **rhizomes** of plant ***Rauwolfia serpentina***

Family: **Apocynaceae.**

Microscopy:

- T.S section of root shows externally by **stratified cork with 2-7 layers** of small cells that is followed by **phelloderm.**
- Both bark and wood contains abundent starch.
- **Xylem is entirely lignified**.
- **Sclerenchyma** is absent.
- **Tetrastichous arrangement** present.

17. Which of the following plant is source of anticancer drug vinblastine

(a) Madagascar Periwinkle

(b) Cinchona officinalis

(c) Emblica officinalis

(d) Rauwolfia

17. Which of the following plant is source of anticancer drug vinblastine

(a) Madagascar Periwinkle

(b) Cinchona officinalis

(c) Emblica officinalis

(d) Rauwolfia

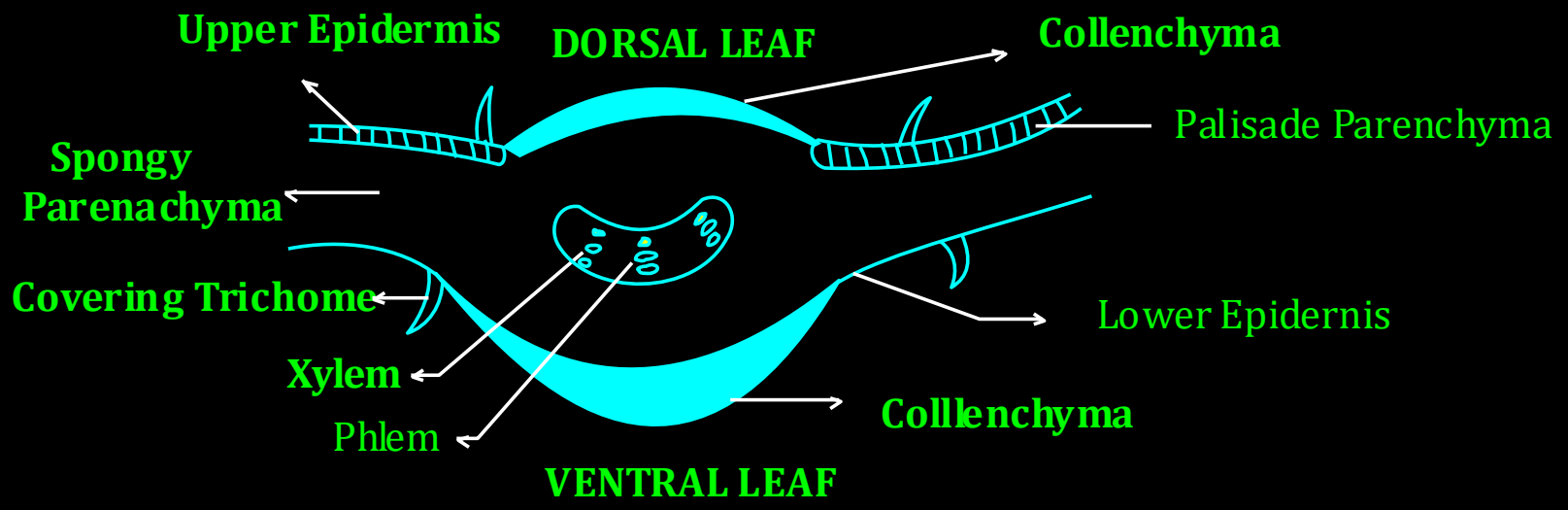
VINCA

Synonym: Periwinkle, Sadabahar

Biological source: Vinca is obtained from **dried whole plant** of ***Catharanthus roseus*** **or** ***Vinca rosea***

Family: Apocynaceae

Microscopy:



T.S. of Vinca leaf

18.Morphine is present in

(a)Atropa belladonna

(b) Ricinus Communis

(c) Papaver somniferum

(d) Cephaelis ipecacuanha

18.Morphine is present in

(a)Atropa belladonna

(b) Ricinus Communis

(c) Papaver somniferum

(d) Cephaelis ipecacuanha

DRUG	SYNONYM	BIOLOGICAL SOURCE	FAMILY	CHEMICAL CONSTITUENTS	USES
OPIUM	Afim	obtained from dried latex obtained by incision of the unripe capsule of *Papaver somniferum*	Papaveraceae	A. Benzylisoquinoline Narceine, Papaverine, Narcotine (Noscapine B. Phenanthrene ring Morphine, Codeine Thebaine	• Analgesic • Sedative & Hypnotic • Cough Suppresant

19. Quinine is obtained from

(a) Cinnamomum

(b) Cinchona

(c) Andrographis

(d) Strychnus

19. Quinine is obtained from

(a) Cinnamomum

(b) Cinchona

(c) Andrographis

(d) Strychnus

DRUG	SYNONYM	BIOLOGICAL SOURCE	FAMILY	CHEMICAL CONSTITUENTS	USES
CINCHONA	**Jesuit's bark, Peruvian bark**	obtained from the dried bark of cultivated tree of ***Cinchona calisaya, Cinchona succirubra, Cinchona officinalis, Cinchona ledgeriana***	Rubiaceae	• Main alkaloids are **Quinine** & **Quinidine** and their respective 6-demethoxy derivative i.e. **Cinchonidine, Cinchonine**	• **Antimalarial** • **Arrhythmias**

20. Pilocarpine is an alkaloid containing nucleus

(a) Pyrazole
(b) Imidazole
(c) Oxazole
(d) Pyrrole

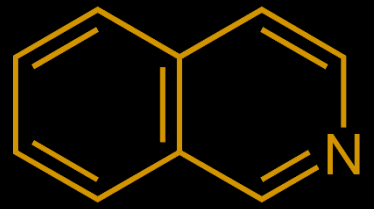
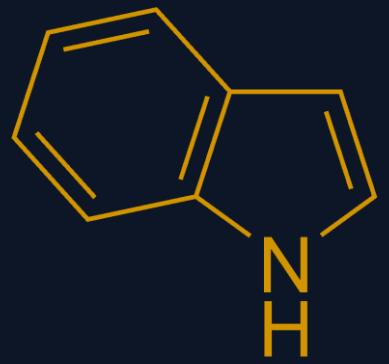
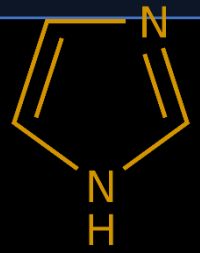
20. Pilocarpine is an alkaloid containing nucleus

(a) Pyrazole

(b) Imidazole

(c) Oxazole

(d) Pyrrole

Isoquinoline alkaloids		**Opium,** **Ipecac,** **Curare,** **Berberis** **Sanguniria**
Indole alkaloids		Ergot, Nux vomica, Rauwolfia, Vinca Catharanthus, Physostigma
Imidazole alkaloids		Pilocarpus

21. What ring is present in Ashwagandha

(a) Terpenoid alkaloids

(b) Terpenoid glycoside

(c) Steroidal lactone

(d) Steroidal glycoside

21. What ring is present in Ashwagandha

(a) Terpenoid alkaloids

(b) Terpenoid glycoside

(c) Steroidal lactone

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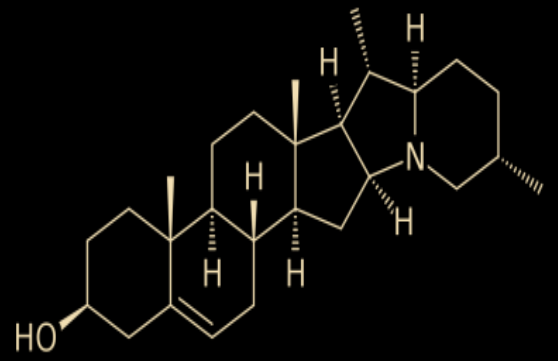
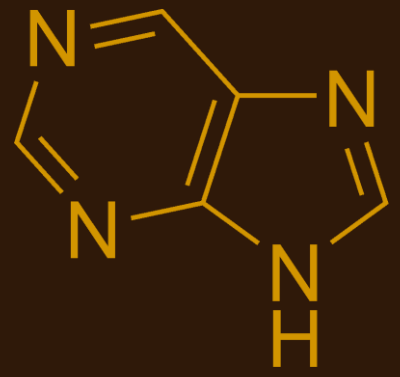
Steroidal alkaloids		**Veratrum, Kurchi Ashwagnadha**
Alkaloidal amine	$CH–CH_2–CH_2\text{-}NH_2$	Ephedra, Colchicum
Glycoalkaloids	-	Solanum
Purine alkaloids		Tea, coffee, Kola, Cocoa

22. Hog weed is the synonym of

(a) Sutmeg

(b) Shatavari

(c) Gymnema

(d) Punarnava

22. Hog weed is the synonym of

(a) Sutmeg

(b) Shatavari

(c) Gymnema

(d) Punarnava

DRUG	SYNONYM	BIOLOGICAL SOURCE	FAMILY	CHEMICAL CONSTITUENTS	USES
Punarnava (Rakta-punarnava)	Hog weed	Dried herb of Boerhaavia diffuse	Nictaginaceae	• Punernavoside, boervinone	• Jaundice, diuretic

23. Which of the following test is used to detection of glycosides

(a) Benedict's test

(b) Borntrager's reagent test

(c) Hager's Reagent test

(d) Glucose tolerance test

23. Which of the following test is used to detection of glycosides

(a) Benedict's test

(b) Borntrager's reagent test

(c) Hager's Reagent test

(d) Glucose tolerance test

CHEMICAL TEST OF GLYCOSIDES

S. NO.	TEST NAME	PROCEDURE	OBSERVATION
A. Chemical Tests for Anthraquinone Glycosides			
1.	**Borntrager's test**	1gm of drug + 5–10 ml of dilute HCl→Boil on water bath for 10 min and filter→Filtrate was extracted with CCl4/ benzene→Then add equal amount of ammonia solution to filtrate and shake	Formation of pink or red colour in ammonical layer is due to presence of anthraquinone moiety
2.	**Modified borntrager's test**	1 gm of drug + 5 ml dilute HCl + 5 ml ferric Chloride (5% w/v)→Boil for 10 min on water bath, cool and filter→Filtrate was extracted with carbon tetrachloride or benzene→Then add equal volume of ammonia solution	Formation of pink to red colour is due to presence of anthraquinone moiety

24. When Klunge's test was conducted with a sample of aloes, a wine-red color was ARB obtained. The sample may be

(a) Socotrine aloes

(b) Zanzibar aloes

(c) Curacao aloes

(d) Zanzibar aloes

24. When Klunge's test was conducted with a sample of aloes, a wine-red color was ARB obtained. The sample may be

(a) Socotrine aloes

(b) Zanzibar aloes

(c) Curacao aloes

(d) Zanzibar aloes

Cupraloin Test (Klung's Isobarbaloin)

1ml aloe solution + 5 ml water + 1 drop of copper sulphate solution

↓

Bright yellow colour is produced

↓

Then addition of 10 drops of saturated solution of sodium chloride changes to purple
The colour persist if 15–20 drops of 90% alcohol is added

↓

This test is positive for Curocao aloe, faint for Cape aloe and negative for Zanzibar and Socotrine aloes

25. The amount of barbaloin present in Abe Vera is

(a) <1%

(b) 3.5-4%

(c) 1-1.5%

(d) 2-2.5%

25. The amount of barbaloin present in Abe Vera is

(a) <1%

(b) 3.5-4%

(c) 1-1.5%

(d) 2-2.5%

Anthracene Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Aloes (kumara)	Dried juice of leaves of aloe Vera, Aloe Barbadensis, Aloe ferox, Liliaceous	Barbaloin(3.5-4%), aloe-Emodin	Purgative

26.Rhubarb belongs to the family

(a) Rhamnaceae

(b) Polygonaceae

(c) Rosaceae

(d) Combretaceae

26.Rhubarb belongs to the family

(a) Rhamnaceae

(b) Polygonaceae

(c) Rosaceae

(d) Combretaceae

Anthracene Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Rhubarb (Rheum)	Dried rhizome to Rheum Palmatum, Family - Polygonaceae	Rhein, aloe Emodin	Purgative bitter stomachic

27. _____ is the botanical source of Indian senna

(a) Dried leaflets of Cassia angustifolia
(b) Dried leaflets of Cassia acutifolia
(c) Dried leaflets of Cassia auriculata
(d) Dried leaflets of Cassia obovata

27. _____ is the botanical source of Indian senna

(a) Dried leaflets of Cassia angustifolia

(b) Dried leaflets of Cassia acutifolia

(c) Dried leaflets of Cassia auriculata

(d) Dried leaflets of Cassia obovata

Anthracene Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Indian Senna (Senna leaf)	Dried leaflets of Cassia angustifolia, Leguminosae	Sennoside A and B	Purgative
Senna pods (Senna – fruit)	Dried nearby ripe fruits of Cassia acutifolia, Leguminosae	Sennoside A and B	Purgative

28. Which test is specially used for localization of cardiac glycosides in the crude drug

(a) Klunge test
(b) Molisch's test
(c) Baljet test
(d) Mayer's test

28. Which test is specially used for localization of cardiac glycosides in the crude drug

(a) Klunge test

(b) Molisch's test

(c) Baljet test

(d) Mayer's test

D. Chemical Tests for Cardiac Glycosides			
1.	**Keller-kiliani test**	Alcoholic extract of drug→Add equal volume of water and 0.5 ml of strong lead acetate solution→**Then shaked and filtered**→Filtrate was extracted with equal volume of chloroform→Chloroform extract was evaporated to dryness→Residue was dissolved in 3 ml of glacial acetic acid followed by addition of few drops of $FeCl_3$ solution→The resultant solution was transferred to a test tube containing 2 ml of conc. H_2SO_4.	Reddish brown layer is formed, which turns bluish green after standing due to presence of digitoxose

2.	**Legal test**	Alcoholic extract of drug→Then equal volume of water and 0.5 ml of strong lead acetate solution was added→Shaked and filtered→Filtrate was extracted with equal volume of chloroform→The chloroform extract was evaporated to dryness→The residue was dissolved in 2 ml of pyridine→Then sodium nitropruside 2 ml was added followed by addition of NaOH solution to make alkaline	Formation of pink colour in presence of glycosides or aglycon moiety

3	**Baljet test**	Thick section of leaf of digitalis or the part of drug containing cardiac glycoside→Dipped in sodium picrate solution	Forms yellow to orange colour in presence of aglycones or glycosides
4.	**3,5-dinitro benzoic acid test**	Alcoholic solution of drug→Few drops of NaOH + 2% solution of 3, 5-dinitro benzoic acid was added	Formation of pink colour indicates presence of cardiac glycosides

29. Cardiac glycoside possess basic nucleus of

(a) Tropane

(b) Triterpene

(c) Quinoline

(d) Cyclopentanoperhydrophenanthrene

29. Cardiac glycoside possess basic nucleus of

(a) Tropane

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(d) Cyclopentanoperhydrophenanthrene

- **Cardiac glycosides are naturally occurring steroids that have a basic nucleus of cyclopentanoperhydrophenanthrene.**
- **This nucleus is made up of four fused rings of 17 carbons in a cis-trans-cis configuration, with an unsaturated lactone ring at C17.**
- **The sugar moiety (glycone portion) is attached to the nucleus through a hydroxyl group at C3.**

30. Keller Kiliani test is specified for

(a) Anthraquinone glycosides

(b) Cardiac glycosides

(c) Saponins

(d) Flavonoids

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(a) Anthraquinone glycosides

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(c) Saponins

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D. Chemical Tests for Cardiac Glycosides			
1.	**Keller-kiliani test**	Alcoholic extract of drug→Add equal volume of water and 0.5 ml of strong lead acetate solution→**Then shaked and filtered**→Filtrate was extracted with equal volume of chloroform→Chloroform extract was evaporated to dryness→Residue was dissolved in 3 ml of glacial acetic acid followed by addition of few drops of $FeCl_3$ solution→The resultant solution was transferred to a test tube containing 2 ml of conc. H_2SO_4.	Reddish brown layer is formed, which turns bluish green after standing due to presence of digitoxose

31. A detailed study on digitalis was carried out by the scientist

(a) A. W. Eichler

(b) Stass-Otto

(c) William Withering

(d) Johann Schmidt

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- William Withering (born March 17, 1741, Wellington, Shropshire, Eng.—died Oct. 6, 1799, Sparkbrook, Birmingham, Warwickshire) was an English physician best known for his use of extracts of foxglove (Digitalis purpurea) to treat dropsy (edema), a condition associated with heart failure and characterized by the accumulation of fluid in soft tissues. Withering's insights on the medical uses of foxglove proved crucial to modern understanding of heart failure, and today drugs containing the active compound, known as digitalis

32. Synonym for Indian squill is

(a) Yam

(b) Liquorice root

(c) Sea Onion

(d) Arrow poison

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(a) Yam

(b) Liquorice root

(c) Sea Onion

(d) Arrow poison

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
European Squill (scilla)	Dried sliced bulbs of Urginea maritima, Liliaceae	Scillaren A and B	Cardiotonic
Indian Squill (Sea Onion)	Dried sliced bulbs of Urginea martitima, Liliaceae	Scillaren A and B	Cardiotonic

33.An example of saponin glycoside is

(a) Glycyrrhiza

(b) Senna

(c) Digitalis

(d) Aloe

33.An example of saponin glycoside is

(a) Glycyrrhiza

(b) Senna

(c) Digitalis

(d) Aloe

3. Saponin Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
1. Brahmi	Leaves and stems Bacopa moniera Scrophulariaceae	Bacosides A and B	Nervine tonic
2. Dioscorea (yam)	Dried Rhizomes of Dioscorea deltoidea, Dioscoreaceae	Diosgenin (steroidal spogenin)	Synthesis of medicinal steroids
3. Ginserg (Panax)	Dried root of Panax ginseng, Araliaceae	Ginsenosides & panaxosides (Triterpenoid saponins)	Adaptogen,
4. Gokhru (tribulus)	Dried fruits Tribulus terrestris Zygophyllaceae	Steroidal sapogenins	Diuretic
5. Jalbrahmi (CENTELLA)	Dried fruits of Momordica charantia Cucurbitaceae	Asiatcoside	Nervine tonic
6. Momordica (karela)	Dried fruits of Momordica charantia Cucurbitaceae	Charantia, Momordicin	Hypoglycemic

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
7. Quillaia (Soap bark)	Dried inner bark of Quillaia saponaria Rosacea	Quillaia sapotoxin (triteroenoid saponin)	Reflex expectorant
8. Safed Musali	Peeled Tuberous roots of Chlorophytum borovillianum Liliaceae	Hicogenin	General tonic
9. Senega	Dried roots of Polygalasenega, Polygalaceae	Senegin, polygallic acid (triterpenoid saponin) Shatavrin I,II	Galactogogue
10. Shatavari (Shutmuli)	Dried roots and leaves Asparagus racemosus Liliaceae	Shatavarin I,II	Galactogogue
11. Yasti (glycyrrhiza)	Dried roots and stolon of glycyrrhiza glabra, Leguminosae	Glycyrrhizin (triterpenoid saponin), 18 – β – glycyrrhetinic acid	Expectorant, treatment of peptic ulcer

34. Haemolysis test is done for which glycoside

(a) Saponin

(b) Thiocyanate

(c) Anthraquinone

(d) Phenol

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(a) Saponin

(b) Thiocyanate

(c) Anthraquinone

(d) Phenol

B. Chemical Tests for Saponin Glycosides			
1.	Haemolysis test	A drop blood on slide + few drops of aq. Saponin solution	RBC's becomes ruptured in presence of saponins
2.	Foam test	1 gm of drug + 10–20 ml of water → Shake for few minutes	Formation of frothing which persists for 60–120 seconds in presence of saponins

35. Panaxoside is the constituent of

(a) Ginseng
(b) Brahmi
(c) Senega
(d) Gokhrzu

35. Panaxoside is the constituent of

(a) Ginseng

(b) Brahmi

(c) Senega

(d) Gokhrzu

Saponin Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Ginserg (Panax)	Dried root of Panax ginseng, Araliaceae	Ginsenosides & panaxosides (Triterpenoid saponins)	Adaptogen,

36. Dioscin is an example of

(a) Triterpenoid

(b) Alkaloidal resin

(c) Steroidal saponin

(d) Mucilage

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(a) Triterpenoid

(b) Alkaloidal resin

(c) Steroidal saponin

(d) Mucilage

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Dioscorea (yam)	Dried Rhizomes of Dioscorea deltoidea, Dioscoreaceae	Diosgenin (steroidal spogenin)	Synthesis of medicinal steroids

37. Quassia wood is adulterated with

(a) Brucea antidysenterica

(b) Cinnamomum zeylanicum

(c) Cassia angustifolia

(d) Glucose and Rhamnose

37. Quassia wood is adulterated with

(a) Brucea antidysenterica

(b) Cinnamomum zeylanicum

(c) Cassia angustifolia

(d) Glucose and Rhamnose

The picrosma excelsa species of quassia is adulterated by quassia amara and bruise antidysentrica.

38. An antidiabetic plant drug

(a) Withania somnifera

(b) Saraca indica

(c) Urginea maritime

(d) Gymnema sylvestre

38. An antidiabetic plant drug

(a) Withania somnifera

(b) Saraca indica

(c) Urginea maritime

(d) Gymnema sylvestre

Glycosidal Bitters and Miscellaneous Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Gudmar (Gymnema)	Dried leaves of Gymnema sylvestre Asclepiadaceae	Gymnemic acid	Anti-diabetic

39. Anti-sweetening agent in Gymnema Sylvester

(a) Gymnemic acid
(b) Hentriacontane
(c) Pentatriacontane
(d) Kinolin

39. Anti-sweetening agent in Gymnema Sylvester

(a) Gymnemic acid

(b) Hentriacontane

(c) Pentatriacontane

(d) Kinolin

Glycosidal Bitters and Miscellaneous Glycosides

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Gudmar (Gymnema)	Dried leaves of Gymnema sylvestre Asclepiadaceae	Gymnemic acid	Anti-diabetic

40. Glycyrrhizin, a sweet principle of liquorice

(a) K and Mg salts of glycyrrhizinic acid
(b) Na and Mg salts of glycyrrhizinic acid
(c) K and Ca salts of glycyrrhizinic acid
(d) Na and Ca salts of glycyrrhizinic acid

40. Glycyrrhizin, a sweet principle of liquorice

(a) K and Mg salts of glycyrrhizinic acid

(b) Na and Mg salts of glycyrrhizinic acid

(c) K and Ca salts of glycyrrhizinic acid

(d) Na and Ca salts of glycyrrhizinic acid

Name Of Drug And Synonym	Biological Source	Active Constituents	Uses
Yasti (glycyrrhiza)	Dried roots and stolon of glycyrrhiza glabra, Leguminosae	Glycyrrhizin (triterpenoid saponin), 18 – β – glycyrrhetinic acid Sweet principle - K and Ca salts of glycyrrhizinic acid	Expectorant, treatment of peptic ulcer