T. Y. B. Pharm
Semester Exam
Sem - V

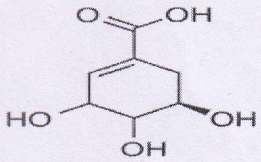
28/11/24

Duration: 3 Hours **Total marks: 75**

N.B.: 1. All questions are compulsory
2. Figures to right indicate full marks

Q. I Choose appropriate option for following multiple choice based questions. **20**

1 The following structure leads to synthesis of _____.



a Amino acids
b Fatty acids
c Sterols
d Terpenes

2 Following is a primary metabolite
a Glycol
b Glucose
c Glycerol
d Glycyrrhizin

3 Forskolin belongs to the family
a Lamiaceae
b Liliaceae
c Leguminosae
d Loganiaceae

4 _____will respond to Vitali Morin's test
a Artemisia
b Belladona
c Licorice
d Opium

5 Reserpine on first step of hydrolysis gives
a Reserpic acid+Methanol
b Reserpic acid+Ethanol
c Methyl reserpate+Trimethoxy benzoic acid
d Ethyl reserpate+Trimethoxy cinnamic acid

6 Rutin belong to _____class of phytoconstituent
a Tannin
b Alkaloid
c Flavonoid
d Volatile oil

7 An example of anticancer drug is
a Pterocarpus
b Podophyllum
c Pudina
d Peppermint

8 Following drug is used for the synthesis of steroidal hormone:
a Dioscorea
b Dill
c Duboisia
d Dhanawantari

9 Vittae are found in
a Fennel
b Clove
c Cinchona
d Cinnamon

10 Menthol is commercially produced from
a *Mentha piperata*
b *Mentha arvensis*
c *Mentha spicata*
d *Mentha Canadensis*

11 Which of the following is not the use of Forskolin?
a Vasodilating agent
b Antidepressant agent
c Antibiotic agent
d Antiasthamatic agent

12 _____ is the synonym of Colophony
a Reserpine
b Resin
c Rosin
d Ricin

13 Guggulosterone is present in
a *Cassia acutifolia*
b *Cinchona calisaya*
c *Commiphora mukul*
d *Carum carvi*

14 Schoenteten test is also called as _____.
a Baljet test
b Biuret test
c Burchardt test
d Borax test

15 Alexandrian senna is _____ .
a *Cassia angustifolia*
b *Cassia abbreviata*
c *Cassia acutifolia*
d *Cassia obovata*

16 _____ contains indole in its structure.
a Atropine
b Reserpine
c Resveratrol
d Aporphine

17 Enoxolone is nothing but
a Glycyrrhetinic acid
b Anthraquinone
c Gallic acid
d Gluconolactone

18 Spectroscopy is interaction between
a Electromagnetic radiation and matter
b Electromagnetic radiation and visible rays
c Electromagnetic radiation and ultra violet rays
d Electromagnetic radiation and ultra violet-visible rays

19 Caffeine chemically is
a 1,3-dimethylxanthine
b 1,3,7-trimethylxanthine
c 3,7- dimethylxanthine
d 1,3,7,9-tetramethyl xanthine

20 Electrophoresis is a technique used for
a Purification of Alkaloids
b Separation of lipids
c Identification of volatile oils
d Separation of DNA, RNA or Proteins

Q. II A **Answer any TWO out of THREE** **20 M**

1 Answer the following **10 M**
a. Illustrate various Investigation techniques for biogenetic pathways
b. Write source, structure, isolation, analysis and uses of Menthol

2 Write industrial production and utilization of the following: **10M**
1. Atropine
2. Artemisinin

3 Enlist all modern methods of extractions, draw well labelled diagram of pressurized solvent extraction write note on chemical reaction based extraction with suitable example. **10M**

Q.II B.	**Answer any SEVEN out of NINE**	**35 M**
1	Elaborate shikimic acid pathway with names & structures.	**5 M**
2	Classify Saponin Glycosides and write a note on one drug belonging to the category.	**5 M**
3	Write source and phytochemistry of a Narcotic Drug.	**5 M**
4	Give phytochemistry and uses of *Digitalis purpurea.*	**5 M**
5	What are bitter glycosides? Write source, chemistry & uses of Gentian.	**5 M**
6	Write source, structure, isolation and analysis of Quinine. Differentiate between Quinine and Quinidine.	**5 M**
7	What are terpenoids? Write source, structure, isolation and analysis of Citral.	**5 M**
8	Write any five conventional methods of extraction in detail.	**5 M**
9	Give principle, procedure and applications of TLC.	**5 M**