

B. Pharm. Third Year (CBCS Pattern) Semester-V
BP504T - Pharmacognosy and Phytochemistry-II

P. Pages : 3

Time : Three Hours



GUG/W/24/13182

Max. Marks : 75

- Notes :
1. All questions are compulsory.
 2. Illustrate your answers wherever necessary with the help of neat sketches.

1. Multiple Choice Questions

20

- i) The important precursor for the production of steroidal drugs is,
 - a) Dioscin
 - b) Diosgenin
 - c) Digoxin
 - d) Digitoxin
- ii) Alkaloids are,
 - a) Non organic products of plants origin, non basic in nature
 - b) Non organic products of plant origin , basic in nature
 - c) Organic products of plant origin, basic in nature
 - d) None of above
- iii) Hyoscyamine is an ester of,
 - a) Lysergic acid
 - b) Tropic acid and Tropine
 - c) Oxalic acid and atropine
 - d) None of above
- iv) N-Glycoside are as such present in,
 - a) Riboside
 - b) Mitochondria
 - c) Golgi sides
 - d) Nucleosides
- v) Bitter almond is which type of glycoside,
 - a) Anthraquinone
 - b) Isothiocyanate
 - c) Cyanogenetic
 - d) Steroidal
- vi) Tannin is a substance which is detected qualitatively by,
 - a) Borntrager test
 - b) Modified Borntrager test
 - c) Gold Beater Skin test
 - d) None of above
- vii) Phlobaphenes, red coloured insoluble compound is produced in,
 - a) Hydrolysable tannin
 - b) Condensed tannin
 - c) Pseudo tannin
 - d) Both a & b
- viii) Gambier is a,
 - a) Dried fruit
 - b) Dried seeds
 - c) Dried aqueous extract
 - d) Dried bark

- ix) Resins are,
- Non organic product of plant origin basic in nature
 - Amorphous non nitrogenous product of complex chemical nature
 - Complex, nitrogenous, polyphenolic substance of higher molecular weight
 - None of above
- x) The disagreeable odour of the oil of *Commiphora molmol*; *Burseraceae* is due,
- Disulphide
 - Trisulphide
 - Monosulphide
 - None of above
- xi) *Mentha piperita vulgaris* and *Mentha piperita officinalis* are,
- Black peppermint and White peppermint
 - White peppermint and Black peppermint
 - Brown peppermint and White peppermint
 - None of above
- xii) Menthol acts as a,
- Weak κ -opioid receptor agonist
 - Strong κ -opioid receptor agonist
 - Weak κ -opioid receptor antagonist
 - Strong κ -opioid receptor antagonist
- xiii) Caffeine is identified by,
- Murexide test
 - Vitalis test
 - Molish test
 - Millon test
- xiv) American podophyllum is obtained from,
- Podophyllum emodi
 - Podophyllum peltatum
 - Podophyllum hexandrum
 - None of above
- xv) Forskolin reduces intraocular pressure and also causes bronchodilation. It is,
- Sesquiterpenoid
 - Sesterpenoid
 - Diterpenoid
 - None of the above
- xvi) Which of the following types of chromatography involves the separation of substances in a mixture over a 0.2mm thick layer of an adsorbent,
- Gas liquid chromatography
 - Column chromatography
 - Thin layer chromatography
 - Paper chromatography
- xvii) Partition chromatography is known as,
- Solid-Liquid
 - Liquid-Liquid
 - Gas-Liquid
 - None of these
- xviii) The process of boiling drug with water for 10 to 15 minute is called,
- Decoction
 - Maceration
 - Percolation
 - Infusion

- xix) Modern methods of extraction are also known as,
a) Blue extraction b) Blue chemistry
c) Green extraction d) Green chemistry
- xx) The stationary phase in the Thin Layer Chromatography is,
a) Liquid held between glass b) Silica gel
c) Glass plate d) None of the above

2. Solve the following (**any 2**) **20**

- a) What is mean by primary and secondary metabolites? Write the role of secondary metabolite in plants. Explain in detail about Shikimic acid pathway.
- b) What are tannins? Classify them along with its general properties. Differentiate between Black and Pale catechu.
- c) Write in detail about chromatographic techniques used for isolation, purification and identification of crude drugs.

3. Solve the following (**any 7**) **35**

- a) What are flavonoids? Write in brief about Ruta.
- b) Short note on Thin Layer Chromatography.
- c) Note on chemical test of aloe.
- d) Isolation, identification and analysis of Quinine.
- e) Define glycoside and differentiate between Tinnevely and Alexandrian Senna.
- f) Write about industrial production and estimation of Artemisinin.
- g) Write a note on tracer techniques.
- h) How will you isolate Glycyrrhetic acid from Liquorice root?
- i) Write a note on HPLC techniques used for isolation, purification and identification of crude drug.
