



BRAINWARE UNIVERSITY

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Term End Examination 2023-2024
Programme – B.Pharm-2019/B.Pharm-2020/B.Pharm-2021
Course Name – Pharmacognosy and Phytochemistry II
Course Code - BP504T
(Semester V)

Full Marks : 75

Time : 3:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

- (i) Select the correct answer which is the basic building block of proteins.
 - a) Nucleotide
 - b) Carbohydrate
 - c) Amino Acid
 - d) Lipid
- (ii) Choose which is Mayer's reagent
 - a) Potassium mercuric- iodide solution
 - b) Saturated aqueous solution of picric acid
 - c) Potassium tri-iodide solution
 - d) Potassium bismuth iodide solution
- (iii) Expression method is used for
 - a) Rose oil
 - b) Clove oil
 - c) Lemon oil
 - d) All of these
- (iv) Stas-Otto method is useful isolation of
 - a) Isolation of alkaloids
 - b) Isolation of glycosides
 - c) Isolation of volatile oils
 - d) Isolation of Resins
- (v) Caffeine is categorized as
 - a) True alkaloid
 - b) Proto alkaloid
 - c) Pseudoalkaloid
 - d) None of these
- (vi) Identify, flavonoids are derived from which amino acid
 - a) Phenylalanine
 - b) Leucine
 - c) Lysine
 - d) Tryptophan
- (vii) Atropine is an example of:
 - a) Purine alkaloid
 - b) Quinoline alkaloid
 - c) Tropane alkaloid
 - d) Indole alkaloid
- (viii) Millon's test is used to identify
 - a) Carbohydrate
 - b) Glycoside
 - c) Tannins
 - d) Protein

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- (ix) Label, Flavonoids are chemically
 - a) Heterocyclic basic, nitrogenous compound
 - b) Polyphenolic compounds
 - c) Large steroidal lactone group
 - d) None of these
- (x) Mayer's reagent can be labeled as:
 - a) Potassium mercuric- iodide solution
 - b) Saturated aqueous solution of picric acid
 - c) Potassium tri-iodide solution
 - d) Potassium bismuth iodide solution
- (xi) Predict the stationary phase for TLC
 - a) Calcium Carbonate
 - b) Zinc Oxide
 - c) Silicon Dioxide
 - d) Silica gel G
- (xii) Identify the correct answer, the shikimic acid pathway is a crucial route for the biosynthesis of:
 - a) Amino acids and fatty acids
 - b) Fatty acids and nucleotides
 - c) Aromatic amino acids and secondary metabolites
 - d) Nucleotides and carbohydrates
- (xiii) Identify the source of Vasicine:
 - a) Adhatoda vasica
 - b) Vinca rosea
 - c) Atropa belladonna
 - d) Rauwolfia serpentina
- (xiv) Alkaloids are ___ containing secondary metabolites
 - a) Oxygen
 - b) Carbon
 - c) Hydrogen
 - d) Nitrogen
- (xv) In tracer selection isotope of C and H are used for:
 - a) Biological investigation
 - b) Chemical identification
 - c) Physical investigation
 - d) Biosynthetic investigation
- (xvi) One example of crude drug belongs to Papaveraceae family is:
 - a) Rauwolfia
 - b) Vinca
 - c) Opium
 - d) Liquorice
- (xvii) Identify the secondary metabolite
 - a) Alkaoids
 - b) Carbohydrates
 - c) Fats
 - d) Protein
- (xviii) Express which of the following is a source of tropane alkaloid
 - a) Buck Wheat
 - b) Digitalis
 - c) Belladona
 - d) Saffron
- (xix) Recall, Vitali-Morin test is useful for
 - a) Caffeine
 - b) Etoposide
 - c) Atropine
 - d) Curcumin
- (xx) Identify the odd one
 - a) Squalene
 - b) Lanosterol
 - c) Zymosterol
 - d) Quercetin

Group-B

(Short Answer Type Questions)

5 x 7=35

- 2. Explain the microscopy of Ginger with neat labelled diagram (5)
- 3. Define in details about the isolation and identification properties of Curcumin (5)
- 4. Explain the isolation techniques of Caffeine from tea leaves (5)
- 5. Describe the biological source, Chemical tests and uses Benzoin (5)
- 6. Explain the biological source, Chemical constituents and uses of Cinnamon and Opium (5)
- 7. Discuss the applications and advantages of Paper Chromatography. (5)

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OR

- Illustrate the packing method in Percolation. (5)
8. Summarize the components of Microwave assisted extraction along with a schematic diagram. (5)

OR

- Explain the factors affecting the Microwave Assisted Extraction. (5)

Group-C

(Long Answer Type Questions)

10 x 2=20

9. Describe the acetate mevalonate pathway. (10)
10. Explain by summarizing the choice of solvent and choice of extraction. (10)

OR

- Summarize the principle, procedure of PC and TLC with detailed diagram. (10)

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