



BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – B.Pharm-2018/B.Pharm-2019/B.Pharm-2020
Course Name – Pharmacognosy and Phytochemistry II
Course Code - BP504T
(Semester V)

Time : 3:0 Hours

Full Marks : 75

[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) Adonidin is a:
a) Fructoside
b) Rhamnoside
c) Glucoside
d) All of these
- (ii) The core of steroids contains ___ carbon atoms
a) 14
b) 15
c) 16
d) 17
- (iii) Identify the full form of UTP
a) Uridine Tetrphosphate
b) Uric Tetrphosphate
c) Uridine Triphosphate
d) Uric Triphosphate
- (iv) The role of acetic acid in biogenetic pathways was discovered in:
a) 1950
b) 1951
c) 1963
d) 1955
- (v) Identify the primary metabolite
a) Alkaloids
b) Protein
c) Glycosides
d) Terpenoids
- (vi) Corn mint is an adulterant of
a) Mentha oil
b) Clove oil
c) Cinnamon oil
d) None of these
- (vii) The chemical structure of flavonoid is based on a:
a) C-15 skeleton
b) C-14 skeleton
c) C-12 skeleton
d) C-13 skeleton
- (viii) Tea is the leaf buds and leaves of the plants:
a) Thea sinensis
b) Ruta graveolens
c) Glycyrrhiza glabra
d) Digitalis purpurea
- (ix) Identify the secondary metabolite
a) Alkaoids
b) Carbohydrates
c) Fats
d) Protein

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- (x) Quercetin is an example of:
- a) Alkaloid
b) Resin
c) Volatile oil
d) Flavonoid
- (xi) Identify the intermediate compound between Aromatic compounds and Nucleic acid
- a) Amino acid
b) Acetyl CoA
c) Terpenoid
d) Pyruvic acid
- (xii) Which one is odd:
- a) Chlorophyll
b) Nucleic acid
c) Heme
d) Alkaloid
- (xiii) The main compound present in Ruta is:
- a) Glycoside
b) Tannin
c) Saponin
d) Acridone alkaloid
- (xiv) One example of steroid is:
- a) Rutin
b) Prednisolone
c) Digoxin
d) Emetine
- (xv) Select the common link between Pentose phosphate pathway and Pyruvate
- a) Secondary carbon metabolism
b) Primary carbon metabolism
c) Tertiary carbon metabolism
d) None of the above
- (xvi) Select the correct one
- a) Shikimic acid pathway is an alternate route to aromatic compounds
b) The role of biogenetic pathways was discovered in 1850
c) Tryptophan is the only compound that act as precursor
d) GFPP is the precursor of carotenoids
- (xvii) Digitalis purpurea is belonging to family:
- a) Apocynaceae
b) Moraceae
c) Tiliaceae
d) Scrophulariaceae
- (xviii) In biogenesis of terpenoids, GGPP is produced by
- a) Head to tail coupling
b) Tail to tail coupling
c) Both of the above
d) None of the above
- (xix) Manchurian liquorice is obtained from
- a) Glycyrrhiza uralensis
b) Glycyrrhiza glabra
c) Glycyrrhiza acanthocarpa
d) None of these
- (xx) Lactobacillus acidophilus is used in metabolic pathway for the synthesis of _____ compounds:
- a) Alkaloidal compounds
b) Glycosidal compounds
c) Isoprenoid compounds
d) None of these

Group-B

(Short Answer Type Questions)

5 x 7=35

2. Define Secondary metabolite. Describe biogenesis of Ornithine. (5)
 3. Illustrate the major biosynthetic pathway of secondary metabolites and their inter relationship with primary metabolism in plants. (5)
 4. Summarize the method using isolated organ or tissues for biogenetic investigation. (5)
 5. Write the salient features of alkaloids. (5)
 6. Explain the Stas-Otto method for extraction of alkaloid. (5)
 7. With a focus on Caffeine, define and explain the properties. (5)
- OR**
- Explain the substituents and adulterants of Senna. (5)
8. Write the steps involved in the industrial production of phytoconstituents. (5)
- OR**
- Write the process of estimation of forskolin by HPLC. (5)

Group-C
(Long Answer Type Questions)

10 x 2=20

9. Explain by summarizing the choice of solvent and choice of extraction.
10. Explain the features of alkaloids.

(10)

(10)

OR

Explain the chemical classes of Tannins and conclude in details with the therapeutic uses of Tannins. (10)

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