

- a) Morphine
c) Caffeine
- b) Ergotamine
d) Quinine
- (x) The role of acetic acid in biogenetic pathways was discovered in _____:
- a) 1950
c) 1963
- b) 1951
d) 1955
- (xi) Tracer technique utilize ___ acetate to analyze between methyl sterol and dimethyl sterol
- a) C14
c) C15
- b) C10
d) C25
- (xii) The main part of opium used mostly is
- a) Leaf
c) Capsule
- b) Fruit
d) Root
- (xiii) Carotenoid is a family of ___ isoprenoids
- a) C10
c) C30
- b) C20
d) C40
- (xiv) Select the two chief intermediates that set the active isoprene unit as the basic building block of isoprenoid compounds
- a) ACP and GGPP
c) IPP and ACP
- b) IPP and DMAPP
d) DMAPP and GGPP
- (xv) What is IPP
- a) Isopentenyl Pyrophosphate
c) Isopentenyl Phosphate
- b) Isopentene Pyrophosphate
d) Isopentene Phosphate
- (xvi) Geranyl pyrophosphate is the precursor of _____:
- a) C10 Monoterpenes
c) C20 Diterpenes
- b) C15 Sesquiterpenes
d) C25 Sesterterpenes
- (xvii) GGPP is the biosynthetic precursor of:
- a) Carotenoid
c) Caffeine
- b) Atropine
d) Digoxin
- (xviii) Liquiritin is one type of:
- a) Flavonoid
c) Resin
- b) Tannin
d) Volatile oil
- (xix) Direct injection method is preferred for plants having _____:
- a) Green leaves
c) Hollow stem
- b) Woody stem
d) Root cap
- (xx) Lactobacillus acidophilus is used in metabolic pathway for the synthesis of _____ compounds:
- a) Alkaloidal compounds
c) Isoprenoid compounds
- b) Glycosidal compounds
d) None of these

Group-B

(Short Answer Type Questions)

5 x 7=35

2. Describe the biogenesis of Sapogenins. (5)
3. Write short note on isolation of Rutin. Sketch the chemical structure of Rutin. (5)
4. Describe the Basic Metabolic Pathway with schematic diagram. (5)

OR

- Define metabolic pathways. Describe the biogenesis of alkaloids derived from phenylalanine, tyrosine and related amino acid. (5)
5. Explain the biogenesis of cholesterol. (5)

OR

- Discuss the biogenesis where IPP along with MVA is the starting molecule. (5)
6. Explain the therapeutic uses of iridoids. (5)

OR

- Explain the isolation and identification procedure of curcumin. (5)

7. How are the properties of an ideal solvent designed? (5)

OR

Express your understanding on spectroscopy. (5)

8. Write a note on Phytoconstituents. (5)

OR

Write short note on analysis of Curcumin. (5)

Group-C

(Long Answer Type Questions)

10 x 2=20

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

10. Introduce terpenoids with focus on Menthol and Citral. (10)

OR

Introduce alkaloids with focus on Caffeine and Quinine. (10)

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