





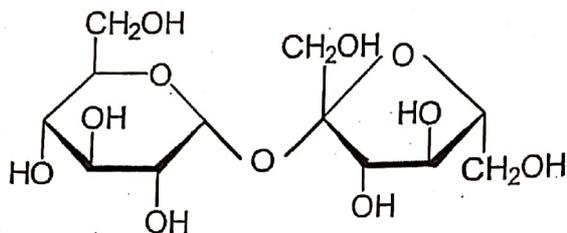


1. Kostanecki Synthesis is related to the synthesis of :
  - (A) Lactose
  - (B) Citral
  - (C) Quinine
  - (D) Flavonol
2. Chrysin on treatment with  $F_2Cl_3$  give color product which indicate the presence of :
  - (A) Phenolic group
  - (B) Hydrazide group
  - (C) Amine group
  - (D) Anhydride group
3. Which of the following is correct according to isoprene rule ?
  - (A) Monoterpene -3 isoprene units
  - (B) Diterpene -6 isoprene units
  - (C) Sesquiterpene -3 isoprene units
  - (D) Triterpene -8 isoprene units
4. Flavones are hydroxylated derivative of :
  - (A) 2-phenyl-4-chromone
  - (B) 2-Propyl-4-chromone
  - (C) 2-Chloro-4-chromone
  - (D) 3-Chloro-4-chromone
5. Quercetin and Cyanidin chloride on fusion with KOH gives :
  - (A) Phloroglucinol and benzoic acid
  - (B) Phloroglucinol and phthalic acid
  - (C) Phloroglucinol and proto-catechuic acid
  - (D) Resorcinol and phthalic acid

6. Trans-citral and cis-citral isomers are named respectively :

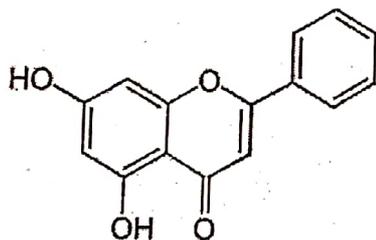
- (A) Geranial and neral
- (B) Neral and geranial
- (C) Both are geranial
- (D) Both are neral

7. Name the following carbohydrate



- (A) Amylose
- (B) Sucrose
- (C) Lactose
- (D) Maltose

8. What is the name of the following pigment



- (A) Anthocyanin
- (B) Cyanidin chloride
- (C) Quercetin
- (D) Chrysin

9. Generally anthocyanins are derivatives of :

- (A) Quinol
- (B) Benzopyrylium chloride
- (C) Triacetoxy acetophenone
- (D) Benzyl chloride

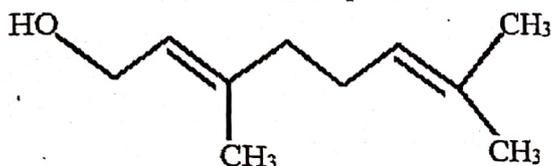
10. In sucrose glycosidic linkage is present between :
- (A) C-1, $\alpha$ - glucose and C-4- $\beta$ -fructose
  - (B) C-2, $\alpha$ - glucose and C-4,  $\beta$ -fructose
  - (C) C-1, $\alpha$ - glucose and C-2,  $\beta$ -fructose
  - (D) C-2, $\alpha$ - glucose and C-2,  $\beta$ -fructose
11. Acetate pathway is related to :
- (A) Synthesis of acetic acid
  - (B) Synthesis of secondary metabolites
  - (C) Synthesis of Nucleic acid
  - (D) Synthesis of Sugars
12. Nicotine contains :
- (A) One pyrrolidine and one benzene ring
  - (B) One pyrrole and one furan ring
  - (C) One pyrrolidine and one Pyridine ring
  - (D) Only pyrrole ring
13. Which one of the following reaction is involved in the biosynthesis of alkaloids?
- (A) Aldol condensation
  - (B) Barton Reaction
  - (C) Birch Reduction
  - (D) Mannich Reaction
14. Flavone on treatment with conc. Hcl gives brilliantly colored product which indicate the presence of :
- (A)  $\gamma$ -lactone ring
  - (B)  $\gamma$ -Pyrone ring
  - (C) Azalactum ring
  - (D) Caprolactum ring

15. In lactose the subunits glucose and galactose are joined by :
- (A)  $\alpha$ -1, 6 – glycosidic linkage
  - (B)  $\alpha$ -1, 4 – glycosidic linkage
  - (C)  $\beta$ -1, 6 – glycosidic linkage
  - (D)  $\beta$ -1, 4 – glycosidic linkage
16. Red color of cyaniding chloride changes to violet in aqueous sodium acetate solution due to formation of :
- (A) Chalkone
  - (B) Phloroglucinol
  - (C) Anhydrobase
  - (D) Pyrone
17. Morphine structure contains :
- (A) Six Rings
  - (B) Seven Rings
  - (C) Four Rings
  - (D) Five Rings
18. Quercitrin is a glycoside formed from :
- (A) Cyanidine chloride and glucose
  - (B) Quercetin and glucose
  - (C) Quercetin and rhamnose
  - (D) Chrysin and fructose
19. Citral is made of :
- (A) One styrene unit
  - (B) Two isoprene unit
  - (C) Two butadiene unit
  - (D) One histidine unit

20. In lactose the subunit D-glucose and D-galactose are in the form of :

- (A) Acetal and Hemiacetal
- (B) Acetal and Acetal
- (C) Hemiacetal and Acetal
- (D) Hemiacetal and Hemiacetal

21. Name the following terpene :



- (A) Geraniol
- (B) Terpeneol
- (C) Citral
- (D) Taxol

22. Which one of the following is true ?

- (A) Alkaloids are synthesized by Shikimic acid pathway
- (B) Terpenes are synthesized by Mevalonic acid pathway
- (C) Both (A) and (B) are true
- (D) None of the above are true

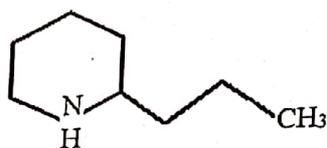
23. Chrysin is a type of :

- (A) Blue flavonoid pigment
- (B) Green anthocyanin pigment
- (C) Red alkaloid
- (D) Yellow flavonoid pigment

24. Terpenoids are also known as

- (A) Isoprenoids
- (B) Isoterpene
- (C) Isobutyl halides
- (D) Isopentane

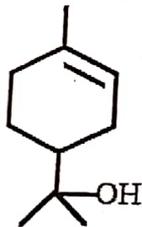
25. Name the following natural product



- (A) Quinine  
(B) Morphine  
(C) Coniine  
(D) Papaverine
26. Cyanidine chloride on treatment with acetic anhydride gives :
- (A) Monoacetyl product  
(B) Triacetyl product  
(C) Tetraacetyl product  
(D) Pentaacetyl product
27. Molecular formula of terpene is :
- (A)  $(C_6H_8)_n$   
(B)  $(C_4H_8)_n$   
(C)  $(C_5H_8)_n$   
(D)  $(C_3H_6)_n$
28. Which of the following is not a characteristic of terpenoid ?
- (A) They are water soluble  
(B) They have high boiling point  
(C) They are lipophilic in nature  
(D) They are polar in nature
29. Which of the following statement to true for sucrose ?
- (A) Sucrose is reducing sugar and exhibit mutarotation  
(B) Sucrose is non reducing sugar and exhibit mutarotation  
(C) Sucrose is non reducing sugar and do not exhibit mutarotation  
(D) None of the above are true

30. Major alkaloid of Rauwolfia is :
- (A) Cyanin
  - (B) Reserpine
  - (C) Hirsutidin
  - (D) Malvidin
31. What is the precursor for terpenoid biosynthesis in plants ?
- (A) Dimethyl pyrophosphate
  - (B) Adenosine triphosphate
  - (C) Isopentenyl pyrophosphate
  - (D) Isopentyl triphosphate
32. Which of the following is not a five carbon unit ?
- (A) IPP
  - (B) DMAPP
  - (C) Isoprene
  - (D) Mevalonic acid
33. Most of the alkaloids are synthesized from :
- (A) Nucleic acids
  - (B) Amino acids
  - (C) Carbohydrates
  - (D) Proteins
34. Anthocyanin pigments are generally :
- (A) Amphoteric
  - (B) Acidic
  - (C) Basic
  - (D) Both acidic and basic
35. Which of the following is a monocyclic monoterphenoid :
- (A) Geraniol
  - (B)  $\alpha$ -Terpineol
  - (C) Quinol
  - (D) Taxol

36. Choose the odd one among the following :
- (A) Nicotine
  - (B) Papaverine
  - (C) Quinine
  - (D) Chrysin
37. Which of the following is used as table sugar ?
- (A) Disaccharide of D-glucose
  - (B) Disaccharide of D-fructose
  - (C) Dissacharide of D-glucose and D-fructose
  - (D) Dissacharide of D-galactose
38. Which of the following is a chincona alkaloid ?
- (A) Coniine
  - (B) Morphine
  - (C) Rauwolfia
  - (D) Quinine
39. Identify the following compound :



- (A)  $\alpha$ -Terpineol
  - (B) Anthoeyanidin
  - (C) Nicotine
  - (D) Quinol
40. The sugar that yields only glucose on hydrolysis is :
- (A) Fructoside
  - (B) Maltose
  - (C) Lactose
  - (D) Sucrose

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