

1. The term metabolite means
  - a) Fix
  - b) No change
  - c) Change
  - d) stable
2. Formation of NADPH from fatty acids & synthesis of ribose for nucleotide by HMP pathway is
  - a) Non oxidative pathway
  - b) Oxidative pathway
  - c) Reductive pathway
  - d) None
3. Following is an example of primary metabolite
  - a) Tannins
  - b) Alkaloids
  - c) Glycosides
  - d) Amino acid
4. Shikimic acid is an intermediate from carbohydrate for synthesis of
  - a) C5-C6 unit
  - b) C6-C3 unit
  - c) C4-C7 unit
  - d) C2-C3 unit
5. Precursor for the synthesis of shikimic acid is obtained from which pathway
  - a) Glycolysis
  - b) Krebs cycle
  - c) HMP
  - d) Both a & c
6. Which of the following is required for conversion of chorismic acid to prephenic acid
  - a) Aldol condensation
  - b) Dehydration
  - c) Reduction
  - d) Claisen rearrangement
7. Isopentenyl pyrophosphate & Dimethyl allyl pyrophosphate are universal precursor for synthesis of
  - a) Isoprenoids
  - b) Glycosides
  - c) tannins
  - d) Alkaloids
8. Isoprene unit has formula
  - a)  $C_5H_8$
  - b)  $C_6H_9$
  - c)  $C_{10}H_{16}$
  - d)  $C_{15}H_{24}$
9. Monoterpenoids have how many isoprene units
  - a) 3
  - b) 2
  - c) 4
  - d) 5
10. Sesquiterpenoids have how many isoprene units
  - a) 3
  - b) 2
  - c) 4
  - d) 5
11. Diterpenoids have how many isoprene units
  - a) 3
  - b) 2
  - c) 4
  - d) 5
12. Acetyl Co-A is formed by the combination of how many unit of Acetyl Co-A
  - a) 1
  - b) 2
  - c) 4
  - d) 3
13. Monoterpene Menthol is produced from
  - a) Geranyl pyro PO<sub>4</sub>
  - b) Farnesyl pyro PO<sub>4</sub>
  - c) two Geranyl pyro PO<sub>4</sub>
  - d) None
14. Rubber is biosynthesized from
  - a) 2 Geranyl Geranyl Pyro PO<sub>4</sub>
  - b) 2 Geranyl Geranyl Pyro PO<sub>4</sub> + Iso pentynyl Pyro PO<sub>4</sub>
  - c) 4 Geranyl Geranyl Pyro PO<sub>4</sub>
  - d) 2 Geranyl Geranyl Pyro PO<sub>4</sub> + Farnesyl Pyro PO<sub>4</sub>
15. Taxol, a diterpenoid is biosynthesized from
  - a) 2 Geranyl Geranyl Pyro PO<sub>4</sub>
  - b) 2 Geranyl Geranyl Pyro PO<sub>4</sub> + Iso pentynyl Pyro PO<sub>4</sub>

- c) 4 Geranyl Geranyl Pyro PO<sub>4</sub>                      d) 2 Geranyl Geranyl Pyro PO<sub>4</sub> + Farnesyl Pyro PO<sub>4</sub>
16. Zinziberene a Sesquiterpene is biosynthesized from
- b) 2 Geranyl Geranyl Pyro PO<sub>4</sub>                      b) 2 Geranyl Geranyl Pyro PO<sub>4</sub> + Iso pentynyl Pyro PO<sub>4</sub>
- d) 4 Geranyl Geranyl Pyro PO<sub>4</sub>                      d) Geranyl Pyro PO<sub>4</sub> + Farnesyl Pyro PO<sub>4</sub>
17. The basic pathway associated with Amino acid (AA) pathway is
- a) Glycolysis and TCA                                      b) HMP and TCA
- c) Glycolysis & HMP                                      d) both b & c
18. Precursor for Serine biosynthesis is
- a) Oxaloacetate    b) Pyruvate
- c) 3- phosphoglycerate                                      d) α-Ketoglutarate
19. Precursor for Tryptophan is
- a) Ribose-5-phosphate                                      b) α-Ketoglutarate
- c) Phosphoenol pyruvate                                      d) Oxaloacetate
20. Imine is an intermediate of
- a) Transamination                                      b) reductive amination
- c) Oxidative amination                                      d) Dehydrogenation