

Date: 24.06.2024

Time: 02 Hours

Answer All Questions.Answer Part - A & Part - B in separate answer booksPART - A

1. 1.1 1.1.1 Define Mutarotation. (10 Marks)
- 1.1.2 When α -D-glucose is dissolved in water, the optical rotation of the solution slowly changes from the initial value of $+ 112.2^\circ$ to an equilibrium value of $+ 54^\circ$. Explain it. (20 Marks)
- 1.1.3 Write a short note on Tragacanth. (20 Marks)

PART - B

- 1.2 Define unsaturated fatty acids with examples. (10 Marks)
- 1.3 Outline the pharmaceutical uses of
- 1.3.1 Docosahexaenoic acid (DHA). (10 Marks)
- 1.3.2 Eicosapentaenoic acid (EPA). (10 Marks)
- 1.4 Briefly explain the preparation of beeswax. (20 Marks)
2. 2.1 Define alkaloids. (10 Marks)
- 2.2 List the function of alkaloids in plants. (15 Marks)
- 2.3 Briefly explain the biosynthetic reactions involved in the biosynthesis of alkaloids. (50 Marks)
- 2.4 Briefly discuss the importance of isomerization in the therapeutic effect of the alkaloidal drugs. (25 Marks)
3. 3.1 Define glycosides. (15 Marks)
- 3.2 Explain the role of glycosides in plants. (35 Marks)
- 3.3 Write a short note on followings:
- 3.3.1 cardiac glycosides. (15 Marks)
- 3.3.2 saponin glycosides. (15 Marks)
- 3.3.3 cyanogenic glycosides. (20 Marks)
4. 4.1
- 4.1.1 Define monoterpenoids. (10 Marks)
- 4.1.2 Briefly explain steps involved in preparation of camphor. (20 Marks)
- 4.2. Briefly discuss the application of proteomics in medicine. (30 Marks)
- 4.3 Write down the functions of carotenoids in plants. (15 Marks)
- 4.4 Briefly explain the properties and uses of Lycopene. (25 Marks)