

M.Sc. (Chemistry) (CBCS Pattern) Sem-III
PSCHT11.2 - Special Paper-II : Organic Chemistry-II

P. Pages : 1

Time : Three Hours



GUG/W/22/11339

Max. Marks : 80

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1. a) Explain isolation of β - carotene. Discuss biosynthesis of β -Carotene 8
b) Give synthesis and structure of Hemoglobin. 8
- OR**
- c) What are terpenoids? Explain with classification. 4
d) Discuss synthesis of Method. 4
e) What is isoprene rule. Explain with its significance.? 4
f) Discuss the synthesis of chlorophyll. 4
2. a) Explain synthesis & stereochemistry of Quinine. 8
b) What are prostaglandins? Write brief note on occurrence, classification with example. 8
- OR**
- c) Discuss synthesis of morphine. 4
d) Explain any one degradation method for determination of Alkaloid. 4
e) Give synthesis of Atropine. 4
f) Explain the synthesis of PGE₂.
3. a) Discuss the synthesis and structural determination of testosterone. 8
b) Describe the occurrence, isolation and properties of myricetin. 8
- OR**
- c) Discuss position of the side chain in cholesterol. 4
d) Explain the synthesis of Bile acid. 4
e) Explain the biosynthesis of flavonoids by Shikimic and pathway. 4
f) Give the synthesis of Cyanidin. 4
4. a) Elucidate the structure & determine the size of the ring in cellulose. 8
b) Write brief note on- 8
i) Solid phase peptide ii) End group synthesis
- OR**
- c) Mention different steps to establish the structure of lactose. 4
d) Write note on amino sugars with examples. 4
e) Explain secondary & tertiary structure of protein. 4
f) Discuss stereochemistry of amino acid & optical resolution of particles. 4
5. a) Give the structure of Vitamin – A 2
b) Write short note on Santonin 2
c) Mention structural characteristics of Reserpine. 2
d) What is the role of alkaloids in plants? 2
e) Explain Diels hydrocarbon of steroid. 2
f) Write a short note on – occurrence of plant pigments. 2
g) Explain deoxy sugar with suitable example. 2
h) Write the structure of protein indicating hydrogen bonds. 2
