

M.SC.(Chemistry) (OLD / CBCS Pattern) Third Semester
MSc2333B / PSCChT11.2 - Special Paper-II : Organic Chemistry Paper-XI

P. Pages : 2

Time : Three Hours



GUG/W/18/11339

Max. Marks : 80

UNIT – I

1. a) Discuss structure and synthesis of chlorophyll. 8
b) What are vitamins? Give the synthesis of vitamin A. 8

OR

- c) Give the synthesis of Hemoglobin. 4
d) Explain synthesis of citral. 4
e) Discuss the biosynthesis of geraniol. 4
f) What are terpenoids? Discuss their classification. 4

UNIT – II

2. a) Out line the Biosynthetic route of nicotine starting from aspartic acid. 8
b) Classify the prostaglandins. Discuss synthesis of PGE₂. 8

OR

- c) Explain the stereochemistry of Quinine. 4
d) Give the Biosynthetic Route of Reserpine in short. 4
e) Explain physiological action of prostaglandins. 4
f) Discuss the role of alkaloids in plants. 4

UNIT – III

3. a) How is the position of – OH group and double bond establish in cholesterol? 8
b) Discuss the following. 8
i) Synthesis of quercetin.
ii) Acetate pathway of biosynthesis of flavonoids.

OR

- c) Write notes on occurrence and Nomenclature of steroids. 4
d) Discuss the synthesis of myricetin. 4

e) Write notes on biosynthesis of flavonoids. 4

f) Write notes on synthesis of Bile Acids. 4

UNIT – IV

4. a) Outline method used for structure determination in maltose sugar. 8

b) What are proteins? Discuss solid phase peptide synthesis. 8

OR

c) Write synthetic steps for sucrose. 4

d) Write note on Strecker synthesis. 4

e) Define carbohydrates Give its classification. 4

f) Write notes on Acid – Base properties of amino acids. What is zwitterion? 4

5. a) Write note on Isoprene Unit. 2

b) Define β -carotenes with suitable example. 2

c) Write the structure of Morphine. 2

d) Write a note on occurrence of atropine. 2

e) Give the structure of androsterone. 2

f) Give brief account in Diels-Alder reaction of Steroids. 2

g) Write a note on Amino Sugar. 2

h) Classify the proteins on the basis of structure. 2
