

M.Sc. Semester - 3 (CBCS) Examination**Oct/Nov. -2019– [OLD COURSE]****CHEMISTRY OF NATURAL PRODUCTS (ELECTIVE -1)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
-

Q.1 Answer any seven of the following ten questions.**[14]**

1. Which types of mono-saccharides found in the nucleic acid?
2. Describe the classification of sex hormones.
3. Define the term “Alkaloid”. Give the structure of Sceletium A₄.
4. Give the chemical structure of vitamin H & C.
5. What is peptidase? Explain with example.
6. Write the chemical structure of (i) Zingiberene (ii) Farnesol
7. Define (i) Nucleosides (ii) Nucleotides
8. Give the synthesis of Atropine.
9. Write the chemical structure of (i) Reserpine (ii) nicotine
10. Give the synthesis of Vitamin A₂ From Vitamin A₁

Q.2 Answer any two of the following three questions.**[14]**

1. Give the synthesis of Morphine.
2. Describe the importance and synthesis of Folic acid.
3. Discuss the properties and denaturation Protein.

Q.3 Answer the following questions.**[14]**

1. Give the classification of terpenoids with example.
2. Give the synthesis of Hexosterol and Stilbosterol.

OR**Q.3 Answer the following questions.****[14]**

1. Discuss the chemistry of α -pinene.
2. Establish the nature & structure of nucleus in the cholesterol.

Q.4 Answer any two of the following three questions.**[14]**

1. Discuss the chemistry and partial synthesis of progesterone.
2. Enlist various separation techniques for the mixture of amino acids and explain any one technique in details.
3. Describe the chemistry of (i) Vitamin K (ii) Vitamin E.

Q.5 Answer any two of the following four questions.**[14]**

1. Give the structure of prostaglandins with their functions.
2. Describe occurrence, nomenclature and classification of Prostaglandins.
3. Give the importance and synthesis of (i) Pantothenic acid (ii) Pyridoxine
4. Give detail classification of the amino acids.
