

**Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot**  
Affiliated to Saurashtra University, Rajkot

**SEMESTER END EXAMINATION NOVEMBER - 2017**

**M.Sc. Organic Chemistry**

**16PCEOC03 – CHEMISTRY OF NATURAL PRODUCTS**

*Duration of Exam – 3 hrs*

*Semester – III*

*Max. Marks – 70*

**Part A (5X2= 10 marks)**

Answer **ALL** questions

1. Give classification of vitamin according to solubility.
2. Give classification of sterols.
3. What are the criteria of Alkaloids?
4. Write any four structures of nucleosides with its names.
5. What are provitamins? Give definition with examples.

**Part B (5X5= 25 marks)**

Answer **ALL** questions

- 6a. How do you extract steroid from medicinal plant?

**OR**

- 6b. Discuss the synthesis of 5 -Cholanic acid.

- 7a. Give the synthesis of vitamin C.

**OR**

- 7b. What are Vitamins? Give differences between water soluble vitamins and fat soluble vitamins.

- 8a. What is alkaloid? Give detail classification according to chemical structure.

**OR**

- 8b. Give the synthesis of Ricinine.

- 9a. Give the synthesis of Caffeine?

**OR**

- 9b. Briefly discuss Plant metabolites.

- 10a. Give synthesis of A(-) Bursheimin.

**OR**

- 10b. How do you separate alkaloid from natural resources?

**Part C (5x7= 35 marks)**

Answer **ALL** questions

11a. Discuss in detail synthesis of Progesterone

**OR**

11b. Describe nature and position of side chain in cholesterol.

12a. Derive the synthesis of vitamin A<sub>2</sub> from A<sub>1</sub>

**OR**

12b. Give the synthesis of following

- i) Vitamin E    ii) Vitamin B<sub>2</sub>

13a. How do you reach at drug molecule from medicinal plant? Explain by detailed chart.

**OR**

13b. Derive the a synthesis of reserpine

14a. Describe the synthesis of Thymine.

**OR**

14b. What are nucleotides? Discuss the synthesis of Adenylate.

15a. Describe the total synthesis of Mersicarpine

**OR**

15b. Give synthesis of the followings:

- i) Griseofulvin  
ii) Luotonin
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