

SHREE H.N. SHUKLA GROUP OF COLLEGES

(AFFILIATED TO SAURASHTRA UNIVERSITY & GTU)



2-vaishali nagar, Near
Amrapali railway
crossing,
Raiya road, Rajkot-
360001. Ph.No.-
(0281)2440478, 2472590

3-vaishali nagar, Near
Amrapali railway
crossing,
Raiya road, Rajkot-
360001. Ph.No.-
(0281)2471645

Behind marketing yard,
Near Lalpari lake,
Between Amargadh-
Bhichri, Rajkot-360002.
Ph.No.-90990 63150

M.Sc. SEMESTER-III

ORGANIC-PHARMACEUTICAL CHEMISTRY

C(OP)-304 : CHEMISTRY OF NATURAL PRODUCTS

ELECTIVE-I

1. Alkaloids

Introduction and classification, Chemistry of atropine, coniine, and reserpine. Synthesis of morphine, colchicine, strychnine, scelletium A4.

2. Vitamins

Introduction and Chemistry of Vitamin A, E and K. Synthesis of riboflavin, pyridoxine vitamin C, niacin, pantothenic acid, folic acid, vitamin-H.

3. Nucleic acid

Structure of nucleoside, nucleotide, and protein.

4. Terpenoids

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Introduction, classification, Chemistry of eudesmol, zingiberene and pinene. Synthesis of farnesol, santonine and longifolene.

5. Steroids and Hormones

Constitution of cholesterol (no synthesis), Chemistry of progesterone and testosterone. Synthesis of hormones: Hexosterol and stilbosterol, ACTH.

6. Prostaglandins

Reference Books

1. Natural products: Chemistry and Biological Significance – J. Madd, R. S. Davidson, J. B. Hobbs, D.V. Banthrope.
2. Organic Chemistry, Vol 2., - I.L. Finar.
3. Stereoselective Synthesis: A Practical Approach - M. Nogradi.
4. Chemistry, Biological and Pharmacological Properties of Medicinal Plants from the Americas - Ed. Kurt, M. P. Gupta and A. Marston.

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5. New trends in Natural Product Chemistry – Alta – Ur- Rahman and M.I. Choudhary.
6. Chemistry of Natural Products. By S. V. Bhat, B. A. Nagasampagi and M. Sivakumar, Springer-Berlin Heidelberg (2005).
7. Organic Chemistry of Natural Products by O.P. Agarwal, Goel Publishing House, Meerut(1997)