

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Industrial Chemistry)
Semester: VI
Syllabus with Effect from: November-2013

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| Paper Code: US06CICH02 | Total Credit: 3 |
| Title of Paper: Pharmaceuticals | |

| Unit | Description in detail | Weightage (%) |
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| I | Drugs Introduction: Drugs, pro-drugs, biotransformation of drugs, routes of drugs administration and dosage forms, drug binding, drug toxicity, drug addiction, some important terms used in chemistry of drugs, biological and medical terms used in the study of drugs, distinctive definition. Classification of drugs, relation of chemical structure and chemical activity. | 25% |
| II | The life saving drugs: Introduction, Sulfadruugs, Antipyretics and analgesics, Antifungal and Anti-inflammatory drugs. | 25% |
| III | Vitamins and Hormones: Introduction, origin of Vitamins, Classification, Deficiency and Disease. Hormones- Adrenaline, Thyroid gland hormone and sex Hormone. | 25% |
| IV | Fermentation: Brief idea of microorganisms, their structure, growth and usefulness. Enzyme systems useful for transformation, microbial products. General principle of fermentation process and product processing. Manufacture of Antibiotics Penicilling and semi-synthetic Penicillins, Vitamin B ₁₂ . | 25% |

Basic Text & Reference Books:

- Organic Chemistry of Drugs Synthesis, Daniel Lednice and L.A. Mitsouhar, Wiley Interscience.
- An introduction to synthetic Drugs, P.P.Singh and D.W.Rangnekar, Himalaya Publication, Bombay.
- Synthetic Drugs by Gurdeep R. Chatwal (Himalaya Publishing House).
- Principles of medicinal chemistry, W.O.Foye: Lea and Febigen, Publication, Philidelphia.
- Text book of organic medicinal and pharmaceutical chemistry Milson, Gisvold, Derge, Lippinett Toppan.

