

**PHARMACEUTICAL CHEMISTRY - VII**  
**(Medicinal Chemistry – III)**

**PH. 7.3      THEORY**

**3 hours / Week**

**UNIT -I**

1. Drug metabolism and Concepts of Prodrugs.
  
2. Classification, mode of action, uses and structure activity relationship of the following classes of drugs. Synthesis of those compounds only exemplified against each class.

- (i) Sulphonamides                               : Sulphadiazine, Sulphamethoxazole, Sulphacetamide sodium.
- (ii) Antibiotics                                :               : General study including classification, synthesis of Methicillin, Ampicillin, Amoxycillin and Chloramphenicol

**UNIT – II**

- (i) Antifungal agents:                        Griseofulvin, Nystatin, Ketoconazole, Amphotericin B, Miconazole.
- (ii) Anti Malarial Drugs : Chloroquine, Pamzquine, Mepacrine, Proguanil, Pyrimethamine.
- (iii) Antineoplastic agents: Chlorambucil, Thiotepa, Busulfan, 5-Fluorouracil
- (iv) Anti-TB and anti-leprosy Drugs: Isoniazid, Ethambutol, Pirazinamide, Dapsone
- (v) Antiamoebic agents: Metronidazole Diloxamide furoate

**UNIT -III**

- (i) Anthelmintics                               : Thiabendazole, Mebendazole, Niclosamide
- (ii) Anti-viral including anti-HIV agents; Acyclovir, Zidovudine
- (iii) Immunosuppressives and immunostimulants: To study only the general concept
- (iv) Diagnostic Agents: Propyl iodone, Sodium diatrizoate, Fluorescein sodium.
- (v) Anticoagulants: Heparin, Coumarins, Phenindione derivatives

**UNIT -IV**

- (vi) Amino acids, Peptide, nucleotides and related drugs.

Thyroid and Anti thyroid drugs: Thyroxine, Liothyronine, Propylthiouracil, Carbimazole

Insulin, Insulin preparations and oral hypoglycaemic agents:  
Chlorpropamide, Tolbutamide, Glibenclamide, Phenformin.

### **RECOMMENDED BOOKS:**

1. Wilson and Grisvold's Text Book of Organic Medicinal and Pharmaceutical Chemistry
2. Principles of Medicinal Chemistry by William O. Foye
3. A Text book of Medicinal Chemistry by S.N.Pandeya Vol I & Vol II
4. Medicinal Chemistry by Ashutosh Kar
5. Bentley's and Driver's Text Book of Pharmaceutical Chemistry