

**Subject Code: B132204/R13****II B. Pharmacy II Semester Regular Examinations April - 2017****MEDICINAL CHEMISTRY-I****Time: 3 hours****Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**  
Answering the question in **Part-A** is Compulsory,  
Three Questions should be answered from **Part-B**

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**PART-A**

1. (a) Write the nomenclature of following heterocyclic compounds.  
(i) Isoquinoline (ii) Pyrimidine  
(b) Explain prodrug and soft drug.  
(c) Differentiate topical and general anaesthetics.  
(d) Write the synthesis and clinical use of atenolol.  
(e) Classify narcotic analgesics with examples.  
(f) Write a note on drugs affecting Thyroid function. [4+4+3+3+4+4]

**PART-B**

2. (a) Write the nomenclature and examples of drugs containing the following ring systems.  
(i) Benzimidazole (ii) Phenothiazine (iii) Imidazole (iv) Thiazole  
(b) Give any two methods of preparation and reduction reactions of pyridine and isoxazole. [8+8]
3. (a) Describe the chemical and structural parameters affecting drug activity.  
(b) Explain various theories of drug action.  
(c) Write a note on factors affecting drug metabolism. [7+5+4]
4. (a) Give the classification of antidepressants. Explain the mechanism of action of Imipramine.  
(b) Write the synthesis, mechanism of action and use of Sodium.  
(c) What are general anaesthetics? Write their clinical uses. [6+6+4]
5. (a) Classify cholinergic drugs with one example to each class. Give the synthesis of Carbachol.  
(b) Write the SAR and clinical use of antiadrenergic drugs.  
(c) Explain the mechanism of action and use of neuromuscular blockers. [6+6+4]
6. (a) Classify NSAIDs. Give the synthesis and mechanism of action of Ibuprofen.  
(b) Write a note on SAR of morphine analogs.  
(c) Explain the synthesis, mechanism of action and clinical use of local anesthetics. [6+4+6]
7. (a) Classify oral antidiabetic agents with examples. Give structure of one drug from each class.  
(b) Write the SAR and mechanism of action of proton pump inhibitors.  
(c) Write the synthesis and use of citrizine. [6+6+4]

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