

**FACULTY****B. Pharmacy 3/4 I Semester (Suppl.) Examination, April 2018****Subject : Medicinal Chemistry – I****Time : 3 Hrs****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Discuss in detail the conjugation reactions involved in the drug metabolism. (6)  
(b) Explain how the following physico-chemical properties influence the biological action of a drug molecule  
(i) Ionization (ii) Hydrogen bonding (4+4)
- OR**
- (c) Discuss with suitable examples the influence of protein binding on biological activity. (7)  
(d) Explain the importance of Bio isosterism in drug design. (7)
- 2 (a) Explain the chemistry and mechanism of action of skeletal muscle relaxants. (6)  
(b) Give the structure and synthesis for the following: (4+4)  
(i) Isoproterenol (ii) Meprobamate
- OR**
- (c) Classify anticholinergic drugs with examples. Write the MoA and SAR. (8)  
(d) Add a note on cholinergic drugs. (6)
- 3 (a) What are Anti arrhythmic drugs? Classify them with examples. (4)  
(b) Give the structure, uses and MoA of following: (5x2)  
(i) Verapamil (ii) Clofibrate (iii) Ticlopidine  
(iv) Captopril (v) Dipyridamol
- OR**
- (c) Add a note on HMG – CoA reductase inhibitors. (7)  
(d) Give an account of cardiotonic drugs. (7)
- 4 (a) Write a note on the following: (7+7)  
(i) Immunosuppressants  
(ii) Hypoglycemic agents
- OR**
- (b) Outline the synthesis and uses of following: (5+5+4)  
(i) Amrinone (ii) Acetazolamide (iii) Propylthiouracil
- 5 (a) Discuss in detail about coagulants and anticoagulants. (7)  
(b) Write the SAR and MoA of proton pump inhibitors. (7)
- OR**
- (c) Give the synthesis and MoA of (4+4)  
(i) Warfarin (ii) Chlorpheniramine  
(d) Write the MoA and SAR of H<sub>2</sub> receptor antagonists. (6)

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