

## FACULTY

**B. Pharmacy 3/4 I – Semester (Main) Examination, November 2017**

**Subject : Medicinal Chemistry – I**

**Time : 3 hrs**

**Max. Marks : 70**

**Note : Answer all questions. All questions carry equal marks.**

- 1 a) What do you mean by prodrug approach in drug design? How is it achieved? 7  
 b) Write the importance of steric features of drugs. 7  

**OR**

 c) Define and give their significances for the following : 4 x 3  
     i) Lipophilicity                      ii) Chelation                      iii) Partition coefficient  
     iv) Ionization
  
- 2 a) Explain the S.A.R. of  $\beta$  adrenergic blocking agents. 8  
 b) Give the synthesis and uses of i) Salbutamol      ii) Mecamylamine HCl 3 x 2  

**OR**

 c) What are cholinergic drugs? Write the mode of action and S.A.R. 8  
 d) Give the synthesis and uses of the following : 2 x 3  
     i) Dicyclomine                      ii) Meprobamate
  
- 3 a) Classify Anti hypertensives with examples and SAR of ACE inhibitors. 8  
 b) Write the synthesis and uses of clonidine and Dipyridamole. 3+3  

**OR**

 c) Give an account of : 7+7  
     i) Cardiotonic drugs              ii) Vasodilators
  
- 4 a) Add a note on positive inotropic agents. 8  
 b) Write the synthesis and uses of i) Amrinone      ii) Tolbutamide 3+3  

**OR**

 c) Define and classify diabetes with examples. Write the MoA and uses of carbonic anhydrase inhibitors. 8  
 d) Give the synthesis and uses of following : 6  
     i) Amloride                      ii) Furosemide
  
- 5 a) Classify Anti histamine agents. Give the SAR of any two classes of  $H_1$  – Antihistaminics. 8  
 b) Write a note on proton pump inhibitors. 6  

**OR**

 c) Discuss in detail about coagulants and anticoagulants. 6  
 d) Write the synthesis and MoA of following : 4+4  
     i) Omeprazole                      ii) Diphenhydramine

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