

Code No. 8048

**FACULTY OF PHARMACY****B.Pharmacy 3/4 I - Semester (Main) Examination, October/November 2014****Subject: Medicinal Chemistry – I****Time: 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Define and give its significance of following: (4 x 3)  
(i) Ionization (ii) Surface activity (iii) Hydrogen bonding (iv) lipophilicity  
(b) Give the applications of Bio-isosterism. (2)  
**OR**  
(c) Discuss in detail conjugation reactions involved in drug metabolism. (7)  
(d) Write the importance of steric features of drugs. (7)
- 2 (a) Identity the following drug and give its structure and name. (8)  
(i) Nitrite with vasodilator action  
(ii) Iomidazole derivatives with anti-hypertensive action  
(iii) Dihydropyridine derivative with anti arrhythmic action  
(iv) Steroidal compound with positive Inotropic action  
(b) Write a note on HmG – CoA reuctase institutions. (6)  
**OR**  
(c) Give the structure, synthesis MOA and uses of following: (3 x 4)  
(i) Ticlopidine (ii) Captopril (iii) Nefidipine  
(d) How do you differentiate between cardienolides and Bufadinolides? (2)
- 3 (a) Explain the S.A.R. of  $\beta$ -Adrenergic blocking agents. (6)  
(b) Outline the synthesis mechanism of action (MoA) and uses of salbutamol and mecamlamine HCl. (2 x 4)  
**OR**  
(c) Add a note on ganglionic blocking agents. (6)  
(d) Give the structure, MoA and synthesis of isoproferenol and meprobamata. (2 x 4)
- 4 (a) Give the structure, synthesis and adverse effects of (4x3)  
(i) Amrinone (ii) Hydro chlorthiazide (iii) furosemide (iv) Glyclazide  
(b) Add a note on Anti-thyroidal agent. (2)  
**OR**  
(c) Discuss in detail structural activity relationship for Tolbutamide ring. (5)  
(d) Give the structure, synthesis and MoA of following: (3 x 3)  
(i) Acetazolamide (ii) Prophylthiouracil (iii) Amiloride
- 5 (a) Explain in detail S.A.R of  $H_1$  – Anti histaminics. (10)  
(b) Add a note on proton pump inhibitors. (4)  
**OR**  
(c) Give the structure synthesis and MoA of following: (3 x 4)  
(i) Ranitidine (ii) Omeprazole (iii) Diphenhydramine  
(d) List out the coagulation factors. (2)

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