

FACULTY OF PHARMACY**B. Pharmacy 3/4 I-Semester (Non-CBCS) (Backlog) Examination,
December 2019****Subject: MEDICINAL CHEMISTRY - I****Time: 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

1. (a) Discuss in detail the importance of steric features of drugs. 7
(b) Explain the role of cytochrome 450 enzyme in drug Metabolism. 7

OR

- (c) Explain how the following physicochemical properties influence the biological action of a drug molecule. 14
(i) Partition coefficient (2) Chelation (3) Hydrogen bonding (4) Redox potentials. (4+4+3+3)

2. (a) Explain the SAR of Adrenergic blocking agents. 8
(b) Give the synthesis, uses and MOA of Salbutamol and Dicyclomine Hcl. 3+3

OR

- (c) Add a note on Ganglionic blocking agents. 8
(d) Give the synthesis and MOA of Carbachol and Isoproterenol. 3+3

3. (a) What are antihypertensive agents. Classify them with examples. Discuss the SAR of ACE inhibitors 1+2+5
(b) Give the synthesis and uses of clonidine and captopril. 3+3

OR

- (c) Add a note on antiplatelet drugs. 6
(d) Give the synthesis, MOA and uses of clofibrate and verapamil. 4+4

4. (a) Explain the SAR of any two types of Diuretics. 8
(b) Add a note on Immuno suppressants. 6

OR

- (c) Discuss the chemistry of Antithyroid agents. 6
(d) Give a note on Hypoglycemic agents and write the synthesis of Tolbutamide. 6+2

5. (a) Classify antihistamines with examples. Explain the SAR of H₁ antihistamines. 2+7
(b) Write the synthesis of cetirizine and Ranitidine. 3+2

OR

- (c) Add a note on proton pump inhibitors. 6
(d) Give the synthesis and MOA of Omeprazole and Diphenhydramine. 8
