

GUJARAT TECHNOLOGICAL UNIVERSITY
B. PHARM (SEMESTER-5) (Old Syllabus) SUMMER-2015

Subject code: 250004**Date: 04/05/2015****Subject Name: Pharmaceutical Chemistry-VI (Medicinal)****Time: 2:30 pm to 5:30 pm****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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|-------------|--|-----------|
| Q.1 | (a) What are heterocyclic compounds? Explain nomenclature and give any one method of preparation and reaction of Quinoline. | 06 |
| | (b) Explain Skraup's synthesis with mechanism. | 05 |
| | (c) Discuss the preparations of Pyrazole, Oxazole and Thiophen. | 05 |
| Q.2 | (a) Discuss the Drug-Receptor interactions and role of binding forces with suitable example for the importance of stereochemistry. | 06 |
| | (b) Write note on Isosteric replacement and Steric hinderance. | 05 |
| | (c) Discuss SAR of H1 antagonist. | 05 |
| Q.3 | (a) Describe second generation antihistamine agents. What advantage do they have over first generation compounds? | 06 |
| | (b) Discuss relation between biological action and physicochemical properties for Partition-coefficients with suitable examples. | 05 |
| | (c) Short note on Proton pump inhibitors. | 05 |
| Q.4 | (a) Explain Radiological contrast media. | 06 |
| | (b) Short note on Mucolytic agents. | 05 |
| | (c) Synthesis of Diphenhydramine and Trimeprazine. | 05 |
| Q.5 | (a) Classify the drugs acting on respiratory tract. | 06 |
| | (b) Define and classify antiasthmatic agents. | 05 |
| | (c) What are eicosanoids? Write in brief about eicosanoid biosynthesis. | 05 |
| Q. 6 | (a) Explain Drugs for irritable bowel syndrome. | 06 |
| | (b) Short note on Antidiarrheals. | 05 |
| | (c) Discuss comments - | 05 |
| | 1) Pyridine is weaker base then alkyl amine and stronger then aniline | |
| | 2) Electrophilic substitution reaction take place at 2 nd position in thiophen | |
| Q.7 | (a) What are Prokinetics? Classify them with suitable examples. | 06 |
| | (b) Define the following terms: | 05 |
| | (1) Emetic (2) Expectorant (3) Decongestant (4) Demulcent (5) Antacid. | |
| | (c) Give the structure of: | 05 |
| | (1) Indole (2) Isoxazole (3) Isoquinoline (4) Pyrazine (5) Piperidine. | |