

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – V • EXAMINATION – SUMMER 2013

Subject Code: 250004**Date: 13-06-2013****Subject Name: Pharmaceutical Chemistry-VI (Medicinal Chemistry)****Time: 02.30 pm - 05.30 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) Comments on the following (each carries two marks)
1. Thiophene is more aromatic than furan
2. Pyridine is more basic than pyrrole
3. Unionized drug absorbed better than ionized | 06 |
| | (b) Describe any two methods of synthesis for quinoline | 05 |
| | (c) Write various reactions of pyrrole | 05 |
| Q.2 | (a) Write about effect of hydrogen bonding and stereoisomerism on biological activity | 06 |
| | (b) Write a note on radio contrast media | 05 |
| | (c) Discuss various proton pump inhibitors | 05 |
| Q.3 | (a) Write structure and chemical name of salbutamol, bromhexine and nikethamide | 06 |
| | (b) Write a note on mucolytic agents | 05 |
| | (c) Write synthesis of ranitidine and chlorpheniramine | 05 |
| Q.4 | (a) Classify antiasthmatic agents and discuss about bronchodilators | 06 |
| | (b) Write a note on antidiarrheals | 05 |
| | (c) Describe various drugs used in irritable bowel syndrome | 05 |
| Q.5 | (a) Write in brief about nomenclature, ionization, tautomerism and stereochemistry of histamine | 06 |
| | (b) Discuss the chemistry of prostaglandins | 05 |
| | (c) Write a note on laxatives | 05 |
| Q. 6 | (a) Classify antihistaminic agents and write SAR of H ₁ receptor blockers | 06 |
| | (b) Write in detail about various methods for synthesis of pyridine | 05 |
| | (c) How protein binding affects the biological activity | 05 |
| Q. 7 | (a) Write structure and chemical name of diphenhydramine, doxylamine and chlorcyclizine | 06 |
| | (b) Write a note on expectorants | 05 |
| | (c) Write down various reactions of thiazole and imidazole | 05 |
