

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER-V • EXAMINATION – SUMMER-2017

Subject Code: 250004

Date: 08/06/2017

Subject Name: PHARMACEUTICAL CHEMISTRY-VI (MEDICINAL)

Time: 10:30 AM to 01:30 PM

Total Marks: 80

Instructions:

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

- | | | |
|-------------|--|-----------|
| Q.1 | (a) Enumerate and define physicochemical properties of drug molecules. Explain Ionization and Hydrogen bonding in detail. | 06 |
| | (b) Explain in detail about Furguson's Principal. | 05 |
| | (c) Write in detail about biososterism. | 05 |
| Q.2 | (a) Give structure of following drugs:
1) Omeprazole 2) Salbutamol 3) promethazine 4) Cyproheptadine
5) Ranitidine | 06 |
| | (b) Write a note on respiratory stimulants. | 05 |
| | (c) Write a detail note on Antitussive agents. | 05 |
| Q.3 | (a) Define expectorants, mucolytics and decongestants. Explain expectorants in detail | 06 |
| | (b) Write a note on antiemetic agents. | 05 |
| | (c) Describe biosynthesis of prostaglandins in detail. | 05 |
| Q.4 | (a) Give the synthesis and reaction of pyrrole and pyridine. | 06 |
| | (b) Write a note on Diagnostic agents. | 05 |
| | (c) Give synthesis of following drugs
1) Omeprazole 2) diphenhydramine | 05 |
| Q.5 | (a) Justify following sentences.
1. Pyridine has higher basicity than pyrrole.
2. Thiophene is more aromatic than furan and pyrrole.
3. Pyrrole gives electrophilic aromatic substitution at second and fifth position. | 06 |
| | (b) Classify antisecretory agents in detail. | 05 |
| | (c) Write a note on Prokinetic agents | 05 |
| Q. 6 | (a) Explain the following with reaction mechanism
(1) Hantch synthesis (2) Fischer synthesis | 06 |
| | (b) Describe geometric and optical isomers in detail. | 05 |
| | (c) Write in detail about antidiarrhoeal agent? | 05 |
| Q.7 | (a) What are autocoids? Classify classical antihistamine with structure and add a note on histamine receptors | 06 |
| | (b) Explain about laxatives in detail | 05 |
| | (c) Write a note on antacids | 05 |
