

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – V • EXAMINATION – WINTER • 2014

Subject Code: 2250004

Date: 03-12-2014

Subject Name: Pharmaceutical Chemistry-VI (Medicinal Chemistry – I)

Time: 10:30 am - 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.

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|-------------|---|-----------|
| Q.1 | (a) Enumerate various physiochemical properties that affect Biological activity and explain any two of them in detail | 06 |
| | (b) How conformers affect biological activity? Classify and explain Bio-isosterism with example | 05 |
| | (c) Define Drug Therapy. Write a note on history of medicinal chemistry | 05 |
| Q.2 | (a) Write a short note on : a) Decongestants b) Antitussive agents c) Respiratory stimulants | 06 |
| | (b) Give structure and chemical name for the following agents. Dextromethorphan HBr; Apomorphine ; Theophylline; Terbutalin ; Salbutamol | 05 |
| | (c) Explain bronchodilators by giving suitable drug example with structure | 05 |
| Q.3 | (a) Differentiate classify and explain Antacids and Antisecretory agents. | 06 |
| | (b) Explain Laxatives. Classify them with suitable example along with structure | 05 |
| | (c) Explain the following terms in short a) cough b)sputum c)wheezing d)Dyspnea e)Acute bronchitis | 05 |
| Q.4 | (a) Explain Proton Pump Inhibitors in detail with its Mechanism of action. | 06 |
| | (b) Write structure, chemical name and synthesis of Ranitidine and Omeprazole | 05 |
| | (c) What is Emesis? Write a note on Antiemetic drugs | 05 |
| Q.5 | (a) Explain Eicosanoids? Discuss its chemistry and SAR. | 06 |
| | (b) Define Antihistamines. Differentiate between H1Receptor blockers and H2 Receptor blockers. | 05 |
| | (c) Illustrate synthesis of Diphenhydramine. Write a note on Eicosanoids approved for Human clinical use. | 05 |
| Q. 6 | (a) Explain SAR of Cholinergic agonists in detail with suitable example. | 06 |
| | (b) What are Radio-opaque agents? Classify by giving example. | 05 |
| | (c) Write a note on Neuromuscular blocking agents and ganglionic blockers | 05 |
| Q.7 | (a) Explain and classify drugs that block the interaction of Norepinephrine with receptor (i.e antagonist). | 06 |
| | (b) Write a note on Diagnostic agents. | 05 |
| | (c) Classify and explain irritable bowel syndrome. | 05 |
