

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2014

Subject Code: 260004

Date: 30-12-2014

Subject Name: Pharmaceutical Chemistry-VIII (Medicinal Chemistry)

Time: 02.30 pm To 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.**

- Q.1** (a) Explain the different types of receptors and their role in different activities with example. **06**
(b) Explain the SAR of acetylcholine agonist in detail with stereochemistry of Acetylcholine. **05**
(c) Write a note on Neuromuscular blocking agents. **05**
- Q.2** (a) Explain with examples the formation of conjugates by glucuronide, acylation and acetylation. **06**
(b) Explain the biosynthesis of Neurotransmitters. Explain the synthesis of Dopamine. **05**
(c) What are NSAIDs? Classify them with two examples of each class. Write the synthesis of Ibuprofen. **05**
- Q.3** (a) Explain the types of seizures. Classify the epileptic drugs with the synthesis of Valproic acid. **06**
(b) Enlist the factors affecting Drug receptor interaction. Explain them in brief. **05**
(c) Why the enzyme Cytochrome called P-450? Explain catalytic reaction cycle involving it. **05**
- Q.4** (a) What are antipsychotic agents? Classify them with examples. Discuss the SAR of phenothiazines. **06**
(b) Explain the SAR of anilide derivatives of local anesthetics. **05**
(c) Write a note on anti-gout agents. **05**
- Q.5** (a) Difference between Opioid and Non-Opioid analgesics. Discuss the SAR of morphine in details. **06**
(b) Give synthesis of 1. Nikethamine 2. Lignocaine 3. pethidine **05**
4. Phenobarbitone 5. Phenytoin
(c) Write a note on antiparkinson's agents. **05**
- Q.6** (a) Explain in detail the SAR of phenylethanolamine. Give the synthesis of Isoprenaline. **06**
(b) Define Antidepressants. Write the SAR of tricyclic antidepressants. **05**
(c) Write a note on Ach-E Inhibitors. **05**
- Q.7** (a) What are the types of Insomnia? Explain the SAR of barbiturates. **06**
(b) Explain stages of anesthesia with classification of Inhalation anesthetics. Write the synthesis of Thiopental sodium. **05**
(c) Write IUPAC of Diazepam, Chlorpromazine and Halothane. Give the synthesis of salbutamol and Indomethacin. **05**
