

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 06
example.
- (b) Explain the SAR of acetylcholine agonist in detail with stereochemistry of 05
Acetylcholine.
- (c) Write a note on Neuromuscular blocking agents. 05
- Q.2** (a) Explain with examples the formation of conjugates by glucuronide, acylation and 06
acetylation.
- (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 05
synthesis of Ibuprofen.
- Q.3** (a) Explain the types of seizures. Classify the epileptic drugs with the synthesis of 06
Valproic acid.
- (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 05
involving it.
- Q.4** (a) What are antipsychotic agents? Classify them with examples. Discuss the SAR of 06
phenothiazines.
- (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 06
in details.
- (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 05
synthesis of Thiopental sodium.
- (c) Write IUPAC of Diazepam, Chlorpromazine and Halothane. Give the synthesis of 05
salbutamol and Indomethacin.
