

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm Sem-VI Examination May 2011

Subject code:260004

Subject Name: Pharmaceutical Chemistry-VIII (Medicinal Chemistry)

Date:21/05/2011

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.

- | | | | |
|-------------|------------|---|-----------|
| Q.1 | (a) | What are sympathomimetics? Classify them with examples? | 06 |
| | (b) | Give the synthesis of adrenaline, isoprenaline and amphetamine? | 05 |
| | (c) | Write a note on biosynthesis of adrenergic neurotransmitters and SAR of β -2 adrenergic agonist. | 05 |
| Q.2 | (a) | What are the factors affecting drug metabolism and add a note on CYP450? | 06 |
| | (b) | Explain with suitable examples, how the esters and arene groups containing drugs are functionalized and conjugated in metabolism? | 05 |
| | (c) | Define Epilepsy? Give synthesis of phenytoin and chlorpromazine? | 05 |
| Q.3 | (a) | Give chemical classification of NSAIDS with at least two examples for each class. | 06 |
| | (b) | Give the SAR of cholinergic drug with examples. | 05 |
| | (c) | Mention the synthesis of pethidine, methadone and Ibuprofen? | 05 |
| Q.4 | (a) | Write the general method of synthesis of barbiturates? Discuss the SAR of barbiturate. | 06 |
| | (b) | Write a note on antiparkinson's agent. | 05 |
| | (c) | Write note on Alzheimer's disease. | 05 |
| Q.5 | (a) | What are sedative and hypnotics? Classify with examples. | 06 |
| | (b) | Provide the mode of action of antiepileptic and local anesthetics. | 05 |
| | (c) | Write a short note on neurochemistry of acetylcholine. | 05 |
| Q. 6 | (a) | Explain about following theory of receptor.
1. Occupational Theory 2. Macromolecular perturbation Theory
3. Induced fit theory | 06 |
| | (b) | List the factor affecting drug- receptor interaction and explain them in brief. | 05 |
| | (c) | Define anticholinergic drugs, classify it with examples. | 05 |
| Q.7 | (a) | What is the difference between neuroleptic, thymoleptic, narcoleptic and analeptic? Classify thymoleptics with structure on the basis of mechanism of action. | 06 |
| | (b) | Give SAR of Tricyclic antidepressants and synthesis of Imipramine. | 05 |
| | (c) | Give chemical classification of Antipsychotics and discuss the SAR of phenothiazine | 05 |
