

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-VI May-2012 Examination

Subject code: 260004

Subject Name: Pharmaceutical Chemistry- VIII (Medicinal Chemistry)

Time: 10:30am to 1:30pm

Date: 08-05-2012

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 major pathways of metabolism? Explain phase-I reactions in detail. **06**
(b) Explain factors affecting the drug-receptor interactions **05**
(c) What is Parkinsons disease? Comment on drugs used in treatment of Parkinsons disease **05**
- Q.2** (a) Give chemical classification of cholinergic blocking agents and discuss SAR of cholinergic blocking agents. **06**
(b) Give synthesis and uses of: **05**
i. Neostigmine ii. Dicyclomine hydrochloride.
(c) What are neuromuscular blocking agents? Discuss in brief different types of Neuromuscular blocking agents. **05**
- Q.3** (a) What are sympathomimetics? Explain metabolism of norepinephrine and epinephrine by MAO and COMT. **06**
(b) Give synthesis and uses of ANY TWO of the following drugs: **05**
i. Dopamine ii. Isoprenaline iii. Ephedrine
(c) Give SAR of β -Adrenergic Receptor Antagonists. **05**
- Q.4** (a) Give SAR & mechanism of action of Tricyclic Antidepressants. **06**
(b) Define and classify CNS stimulants. Write a note on analeptics. **05**
(c) Give structure and IUPAC nomenclature of the following drugs: **05**
i. Amitriptylline ii. Fluoxetine iii. Amphetamine iv. Imipramine
- Q.5** (a) Classify CNS depressants and write a note on SAR of Barbiturates. **06**
(b) What is Psychoses? Give SAR of Phenothiazine. **05**
(c) Discuss types of epilepsy and write a note on Hydantoins. **05**
- Q. 6** (a) Comment on Benzoic acid and Aniline derivatives as local anesthetics. Give one structural example from each class. **06**
(b) Give synthesis and uses of Any Two of the following: **05**
i. Thiopental sodium ii. Lignocaine iii. Phenytoin.
(c) Discuss Benzodiazepines as Sedative Hypnotic? **05**
- Q.7** (a) What are analgesics? Give SAR and mechanism of action of Morphine **06**
(b) Give synthesis and use of Any Two of the following: **05**
i. Paracetamol ii. Aspirin iii. Naproxen
(c) Write short notes on ANY ONE: **05**
i. Alzheimers disease ii. DMARDs
