

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER 2013**

**Subject Code: 260004**

**Date: 04-12-2013**

**Subject Name: Pharmaceutical Chemistry-VIII**

**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) Match the following: **06**
- |                  |                                       |
|------------------|---------------------------------------|
| (i) Mefenamic    | (a) ester and benzoic acid derivative |
| (ii) Aspirin     | (b) propanoic acid derivative         |
| (iii) Nimesulide | (c) diphenyl amine derivative         |
| (iv) Naproxen    | (d) sulfonamide derivative            |
- Write the complete structure of any one from it.
- (b) Name the heterocyclic rings present in the following: **05**
- (i) Phenytoin (ii) Pethidine (iii) Indomethacin (iv) Chlordiazepoxide (v) Allopurinol
- (c) Write structural difference between amphetamine and ephedrine and synthesis of any one. **05**
- Q.2** (a) Write structure and IUPAC name of tricyclic drug: **06**
- (i) 6member/6member/6member ring (ii) 6member/7member/6member ring  
and synthesis on any one from it.
- (b) Write the SAR of local anesthetic agents having amide linkage. **05**
- (c) Why carbidopa is suggested with L-DOPA in Parkinson disease? **05**
- Q.3** (a) Define xenobiotics. Write abbreviations of: DMARD and CYP450. **06**
- (b) Write synthesis of one non-heterocyclic antidepressant drug. **05**
- (c) Write SAR of benzodiazepines. **05**
- Q.4** (a) Write synthesis of one non steroidal NSAID having one chiral center. **06**
- (b) Write SAR of Phenothiazine. **05**
- (c) Discuss about phase-II metabolic pathways. **05**
- Q.5** (a) Write synthesis of meprobamate with mode of action. **06**
- (b) Write synthesis of one aliphatic antiepileptic drug. **05**
- (c) Write structures of the following drugs and category: **05**
- Lignocaine, Carbamazepine, Naphazoline, Dopamine, Methadone
- Q.6** (a) Write SAR of muscarinic agonists. **06**
- (b) Write synthesis of thiopental sodium with mode of action. **05**
- (c) Write the factors affecting drug metabolism. **05**
- Q.7** (a) Write SAR of barbiturates. **06**
- (b) Write the heterocyclic ring present in chlordiazepoxide and ethosuximide. **05**
- Give synthetic pathway of any one drug.
- (c) Write a short note on cognition enhancers. **05**

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