

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) Chlorthalidone (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 chlorthalidone and ethosuximide. **05**  
Give synthetic pathway of any one drug.  
(c) Write a short note on cognition enhancers. **05**

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