

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm – SEMESTER VI– • EXAMINATION – SUMMER -2021

Subject Code: 2260004

Date:06/08/2021

Subject Name: Pharmaceutical Chemistry-VIII (Medicinal Chemistry-II)

Time: 02:30pm to 05:30pm

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) Define Receptor. Enlist different theories of Drug-Receptor interactions. Explain any two in detail. **06**
- (b) Write a detailed note on factors affecting drug-receptor interaction. **05**
- (c) Enlist various forces involved in Drug-Receptor interaction. Explain any two forces in detail. **05**
- Q.2** (a) Define drug metabolism. What do you mean by phase-I reactions? Enlist phase-I reactions and explain oxidation reaction in detail. **06**
- (b) Write a detailed note on factors affecting drug metabolism. **05**
- (c) Explain microsomal oxidation catalyzed by CYP450 including CYP450 cycle. **05**
- Q.3** (a) Define and classify antipsychotic agents with at least three drug names and one structure of each category. **06**
- (b) Define general anesthetics. Discuss stages of anesthesia in detail. **05**
- (c) Give SAR on Tricyclic antidepressants. **05**
- Q.4** (a) Give synthesis and use of: (Any three) **06**
 i). Phenytoin ii). Carbamazepine iii). Lignocaine iv). L-Dopa
- (b) Write a short note on anxiolytic agents. **05**
- (c) Give SAR on Benzodiazepines. **05**
- Q.5** (a) Give SAR on benzoic acid and aniline derivatives with local anesthetic activity. **06**
- (b) Define and classify antiparkinson agents with at least three drug names and one structure of each category. **05**
- (c) Give your knowledge about Analeptics. **05**
- Q.6** (a) Define and classify antiepileptic agents with at least three drug names and one structure of each category. **06**
- (b) Match the followings: (Drug-Heterocyclic ring-Category) **05**
- | A). Drug | B). Heterocyclic ring | C). Category |
|--------------------|------------------------|-------------------------------|
| 1). Allopurinol | a). Phenothiazine | i). NSAID |
| 2). Chlorpromazine | b). Furan | ii). Tricyclic antidepressant |
| 3). Imipramine | c). Indole | iii). Antiepileptic |
| 4). Ethotoin | d). Pyrazolopyrimidine | iv). Memory Enhancer |
| 5). Indomethacin | e). Quinoline | v). Antigout |
| | f). Hydantoin | vi). Local anesthetic |
| | g). Dibenzoazepine | vii). Antipsychotic |
- (c) Write a note on cognition enhancers. **05**
- Q.7** (a) Write a detailed note on antigout agents. **06**
- (b) Write synthesis and IUPAC name of: (Any two) **05**
 i). Diclofenac ii). Ibuprofen iii). Aspirin
- (c) Write an informative note on DMARDS. **05**