

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2016

Subject Code: 2260004

Date: 24-10-2016

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

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.

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|-------------|-----|---|-----------|
| Q.1 | (a) | Draw structure and name the main heterocyclic ring present in the following drugs. i) Allopurinol ii) Naproxen iii) Ibuprofen iv) Halothane v) Amphetamine vi) Chlorpromazine | 06 |
| | (b) | Explain Various Forces involved in Drug-Receptor Interaction | 05 |
| | (c) | Write with structure illustration metabolic biotransformation of any two of the following drugs i) Trimethoprim ii) Aspirin iii) Chloramphenicol | 05 |
| Q.2 | (a) | What are Analgesics? Write SAR and mode of action of morphine | 06 |
| | (b) | What is Cytochrome P-450? Explain its role and function in Xenobiotic Metabolism | 05 |
| | (c) | Write synthesis of any one NSAID having one chiral centre. | 05 |
| Q.3 | (a) | Discuss SAR of Tricyclic Antidepressant drugs with suitable example. | 06 |
| | (b) | Write structure and IUPAC name of the following i) Fluoxetine ii) Imipramine iii) Phenytoin iv) Methyl salicylate v) Paracetamol. | 05 |
| | (c) | Abbreviate DMARD. Explain why Carbidopa is suggested with L-dopa in Parkinson's disease. | 05 |
| Q.4 | (a) | Explain SAR of Barbiturates in detail. | 06 |
| | (b) | Write synthesis of Lignocaine and discuss its mode of action | 05 |
| | (c) | What is Alzheimer's disease? Discuss its cause and treatment. | 05 |
| Q.5 | (a) | Classify and Write SAR of Anxiolytics. | 06 |
| | (b) | Write a short note on Cognition Enhancers | 05 |
| | (c) | Write synthesis of any two drugs i) Ibuprofen ii) Nimesulide iii) Carbamazepine | 05 |
| Q. 6 | (a) | What is Psychoses? Explain SAR of Phenothiazines | 06 |
| | (b) | Discuss Anti-Gout agents and their Mode of action. | 05 |
| | (c) | Classify and Explain Hallucinogens in detail. | 05 |
| Q.7 | (a) | Explain NSAIDs and comment how Opioid analgesics differ from NSAIDs. | 06 |
| | (b) | Write a note on Antiparkinson drugs | 05 |
| | (c) | Write synthesis of any two i) L-Dopa ii) Diclofenac iii) Thiopental sodium | 05 |
