

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 6- EXAMINATION – WINTER - 2018

Subject Code:260004**Date: 29/11/2018****Subject Name: Pharmaceutical Chemistry - VIII (Medicinal Chemistry)****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) Write a note on neuromuscular blocking agents with examples. **06**
(b) What are Cholinergics? What are their physiological actions? Give SAR of Acetylcholine. **05**
(c) What are CNS stimulants? Classify them. Give their uses and synthesis of Imipramine. **05**
- Q.2** (a) Sketch the steps involved in synthesis of (any three): i) Salbutamol **06**
ii) Neostigmine iii) Ephedrine iv) Dopamine
(b) What are opioid analgesics? How do they differ from NSAIDs? **05**
(c) Give main points of structure activity relationship of Morphine. **05**
- Q.3** (a) Sketch the steps involved in synthesis of (any three): i) Procaine ii) Lignocaine **06**
iii) Benzocaine iv) Halothane
(b) Write a note on factors affecting drug receptor interaction. **05**
(c) What is myasthenia gravis? Write the structures of the drugs used in the treatment of myasthenia gravis. **05**
- Q.4** (a) Give the structure and IUPAC nomenclature of (any three): i) Amphetamine **06**
ii) Thiopental iii) Ibuprofen iv) Diclofenac
(b) Write a note on antiparkinson drugs. **05**
(c) What is xenobiotics ? Explain Phase II reactions with examples. **05**
- Q.5** (a) Classify the drugs used in epilepsy with examples. Which ring system is common to all of them? Sketch the steps involved in synthesis of Phenytoin. **06**
(b) What is schizophrenia? Explain SAR of Phenothiazine derivatives as CNS depressants. **05**
(c) Write a short note on psychomotor stimulants. **05**
- Q.6** (a) Write a note on stereochemical aspects of drug metabolism with examples. **06**
(b) Classify hypnotics and sedatives with examples. Give their uses and SAR of barbiturates. **05**
(c) Write a note on adrenergic antagonists. **05**
- Q.7** (a) What are general anesthetics? How do they act? Give SAR of local anesthetics. **06**
(b) Write the advantages of selective COX-2 inhibitors over non-selective NSAIDs. Classify NSAIDs and write mechanism of action of Indomethacin. **05**
(c) Write a short note on narcotic antagonists. **05**
