

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.**

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|-------------|-----|---|-----------|
| 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
ii) Neostigmine iii) Ephedrine iv) Dopamine | 06 |
| | (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
iii) Benzocaine iv) Halothane | 06 |
| | (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
ii) Thiopental iii) Ibuprofen iv) Diclofenac | 06 |
| | (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 |
