Code No: PHR16224 **R16** SET - 1

II B. Pharmacy II Semester Regular Examinations, April - 2018
MEDICINAL CHEMISTRY-I

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1. a) Compare structural differences of pyrrole and pyridine. (2M)
   b) Sketch the structures and uses of phenobarbitol and diazepam. (2M)
   c) Define local anaesthetics. Draw the structures of procaine and benzocaine. (2M)
   d) Explain prodrugs with examples. (2M)
   e) Define adrenergic blockers. Draw the structures of propranolol and prazosin. (2M)
   f) Give two examples for neuromuscular blockers. Mention their therapeutic uses. (2M)
   g) Write the mode of action of omeprazole. (2M)

PART -B

2. a) What are heterocyclic compounds? Write any two synthetic methods for following. (7M)
      i. Pyrrole
      ii. Pyridine
   b) Write any two synthetic methods of isoquinoline and also add note on electrophilic and nucleophilic substitution reactions. (7M)

3. a) Explain receptor theories. (7M)
   b) Write a note on factors affecting drug metabolism. (7M)

4. a) Classify general anaesthetics with examples. Write the synthesis and uses of thiopental sodium. (7M)
   b) Write the synthesis, mode of action, SAR and therapeutic uses of imipramine. (7M)

5. a) Classify adrenergic drugs. Write the synthesis and SAR of salbutamol. (7M)
   b) Give an account on anticholinergics. (7M)

6. a) Classify NSAIDs with at least one example for class. Give the synthesis and mode of action and uses of Ibuprofen. (7M)
   b) Give the classification of local anesthetics with examples. Outline the synthetic scheme for Dibucaine. (7M)

7. a) Classify H1-receptor antagonists. Outline the synthesis and uses of chlorpheniramine. (7M)
   b) Add an account on proton pump inhibitors. (7M)
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