

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)

CLASS: B.PHARM  
BRANCH: PHARMACY

SEMESTER : VI  
SESSION : SP/19

SUBJECT: PS6407 SYNTHETIC MEDICINALS-I

TIME: 3:00 HOURS

FULL MARKS: 60

**INSTRUCTIONS:**

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
  2. Candidates may attempt any 5 questions maximum of 60 marks.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What are Opiate analgesics? Classify them with structural examples. [2]  
Q.1(b) Discuss the opiate receptors and SAR among Morphine like narcotic analgesics. [4]  
Q.1(c) Describe the synthesis of Meperidine Hydrochloride and Fentanyl Citrate [6]
- Q.2(a) What are NSAIDs? Classify them with suitable examples. [2]  
Q.2(b) Draw the structures and compare the activities of-Ibuprofen, Naproxane, Fenprofen & Diclofenac Sod. [4]  
Q.2(c) How will you synthesize-Phenyl butazone and Phenazone? [6]
- Q.3(a) What is Histamine? Enumerate its physiological responses. [2]  
Q.3(b) Discuss the different histamine receptors and mode of action of Antihistaminic drugs. [4]  
Q.3(c) Name two Piperazine antihistaminics with their structures and propose the synthesis for one of them. [6]
- Q.4(a) Define Anaesthesia and differentiate between Local and General anaesthetic agents. [2]  
Q.4(b) Describe the mechanism of action of Local anaesthetic agents. [4]  
Q.4(c) Differentiate between Benzocaine, Procaine and Lidocaine with their anesthetic properties [6]
- Q.5(a) What are the stages of General anaesthesia? [2]  
Q.5(b) Define-Anxiolytics, Sedatives and Hypnotics with suitable structural examples. [4]  
Q.5(c) Describe Neuroleptics with examples. How will you synthesize Chlorpromazine Hydrochloride? [6]
- Q.6(a) Define Epilepsy and mention the treatments available for this disease. [2]  
Q.6(b) Discuss the chemistry of Diazepam and Alprazolam. [4]  
Q.6(c) Name two Anticonvulsant drugs and propose the synthesis of Trimethadione. [6]
- Q.7(a) Define Depression and classify Antidepressant drugs. [2]  
Q.7(b) Discuss the chemistry of Doxapram and Nikethamide [4]  
Q.7(c) Describe the actions of Antifertility drugs with emphasis on Oral Contraceptives. [6]

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