

Code: 9R01601

B.Pharm III Year II Semester (R09) Supplementary Examinations May/June 2018

**MEDICINAL CHEMISTRY – I**

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Enumerate the different approaches to the design of new drugs and discuss in detail any two approaches with examples.  
(b) Write briefly about pro drug concept of drug design.
- 2 (a) Discuss the importance of conjugation reactions in drug metabolism giving suitable examples.  
(b) Explain the role of cytochrome P450 monooxygenase in oxidative biotransformation.
- 3 (a) What are anti-depressants? Classify in detail and outline the synthesis, mode of action of haloperidol?  
(b) Discuss the structure activity relationship of imipramine with its clinical significances.
- 4 (a) What are general anaesthetics? How do they differ from local anaesthetics? Outline the synthesis of halothane.  
(b) Discuss the structure activity relation of benzoic acid derivative as local anaesthetics.  
(c) Write a note on dissociative anaesthetics.
- 5 (a) Write a detailed note on adrenergic receptors.  
(b) Discuss the stereochemistry of ephedrine.  
(c) Outline the synthesis and metabolism of dopamine.
- 6 (a) Discuss the chemistry and biological activities of cholinergic agents.  
(b) Write a note on cholinesterase inhibitors in detail & give the synthesis and uses of pyridostigmine bromide.
- 7 (a) What are beta-adrenergic blockers? Classify and discuss their structure, activity and relationship with suitable examples.  
(b) Write the synthesis and specific uses of propranolol.
- 8 (a) What are parasympatholytic agents and classify them in detail.  
(b) Discuss the mechanism of action and clinical significance of anticholinergics.

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