

Roll No. 

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Total No. of Pages : 01

Total No. of Questions : 06

**M. Pharmacy (Sem.-2)**  
**BIO ORGANIC CHEMISTRY**  
Subject Code : PHCHM-516  
Paper ID : [E0224]

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of SIX questions.
2. Each question carries SIXTEEN marks.

1.
  - a) Describe the mevalonic acid pathway for the biosynthesis of cholesterol.
  - b) Describe the structures and medicinal uses of steroidal secondary sex hormones.
2.
  - a) Classify alkaloids on the basis of heterocyclic nucleus with one structural example.
  - b) Describe the degradation methods of structure elucidation of Morphine.
3.
  - a) What is the difference between terpenoids and terpene? Give outline for the general method of isolation of terpenes.
  - b) Describe the chemistry of abietic acid.
4.
  - a) What are glycosides? Describe the chemistry of cardiac glycosides.
  - b) What are lignins? Describe the chemistry and medicinal uses of any two compounds of this class.
5.
  - a) Describe chiral resolution of propranolol.
  - b) Give a brief account of biotechnologically produced drugs.
6.
  - a) Describe synthesis and medicinal uses of theophyllin.
  - b) Describe the chemistry and medicinal uses of Carotenoids.