

# Rajiv Gandhi University of Health Sciences, Karnataka

## First Year M. Pharm Degree Examination – NOV 2016

**Time: Three Hours****Max. Marks: 100 Marks**

### MEDICINAL CHEMISTRY-II (Natural Products) (Revised Scheme 4)

**Q.P. CODE: 9348**

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Answer any Two)****2 x 20 = 40 Marks**

1. a) Describe in detail the theoretical and practical aspects of microbial conversions.  
b) Enumerate the different reactions possible by microbial conversions. (10+10)
2. a) Describe the significance of structural features, mechanism of action and classification of  
a) Cephalosporins b) Other  $\beta$  lactam antibiotics.  
b) Show how the structure of emetine has been arrived at. (10+10)
- 3 a) Describe the physiological role of sex hormones. Write their structures. Describe the SAR and development of anabolic agents for treatment of infertility.  
b) Classify adrenal cortex hormones; give their therapeutic role. Discuss the structural modifications done to obtain useful medicinal agents. (12+8)

**SHORT ESSAYS (Answer any FIVE)****5 x 10 = 50 Marks**

4. Depict the metabolism of Purines and Pyrimidines.
5. Establish the structure of Morphine.
6. Discuss the chemistry of vitamin B1 with suitable illustrations.
7. Describe the chemistry and development of  $\beta$  -lactamase stable cephalosporins.
8. Describe the chemistry of carotenoids and discuss the constitution of Vitamin A.
9. Elucidate the structure of Reserpine.

**SHORT NOTES****2 x 5 = 10 Marks**

10. Describe the chemistry and MOA of antiparasitic Purine and Pyrimidine related compounds.
11. Discuss the biosynthesis and structure of Vitamin D.

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