

Third Year B.Pharm Degree Examinations - November 2013

**PHARMACEUTICAL CHEMISTRY IV
(Chemistry of Natural Products)**

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Discuss the structure elucidation and pharmacological activity of atropine.
2. Explain the important methods of preparation of amino acids.
3. Discuss the chemistry and structure elucidation of uric acid.

Short notes

(14x5=70)

4. Steroidal oral contraceptive agents.
5. Skeletal structure and biological activities of thyroxine and tri iodo thyronine.
6. Define acid value. Explain the method to determine acid value.
7. Inter relationship of caffeine, theobromine and theophylline.
8. Chemical structures and biological importance of vitamin B₆ and vitamin C.
9. Isoprene rules of terpenoids.
10. Outline the synthesis of progesterone from cholesterol.
11. Denaturation of proteins.
12. Muta rotation of carbohydrates.
13. Cellulose derivatives used in pharmacy.
14. What are steroids. Explain the nomenclature of steroids.
15. Explain essential amino acids with structures.
16. What are anabolic steroids. Mention the structure and uses of testosterone.
17. Discuss the chemistry and uses of α - terpineol.
