

Third Year B.Pharm Degree Examinations - July 2016

**PHARMACEUTICAL CHEMISTRY IV**  
**(Chemistry of Natural Products)**  
**(2012 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay**

**(3x10=30)**

1. Discuss the chemistry and structural elucidation of atropine
2. Discuss the chemistry and structural elucidation of caffeine
3. Explain any three analytical constants of fats and oils.

**Short notes**

**(14x5=70)**

4. Determination of ring size in sugars
5. Structure of cellulose
6. Classification of amino acids with structures
7. Any two methods of preparation of amino acids
8. Chemistry of ionones.
9. Chemical tests for alkaloids
10. Chemistry of saponin
11. Structural elucidation of vitamin A
12. Determination of unsaponifiable matter in oils and fats
13. Synthesis of uric acid
14. Chemistry of cholesterol
15. Synthetic anabolic steroids
16. Structural features of insulin
17. Biological importance of prostaglandins

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