

Third Year B.Pharm Degree Supplementary Examinations - January 2016

PHARMACEUTICAL CHEMISTRY IV
(Chemistry of Natural Products)
(2010 Scheme)

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. Discuss the chemistry and structure elucidation of caffeine.
2. Explain the chemistry and SAR of cardiac glycosides.
3. Explain in detail about the chemistry, structural elucidation and pharmaceutical uses of vitamin A

Short notes

(14x5=70)

4. Define Iodine value. Explain the method to determine it.
5. Structure and biological activities of aldosterone
6. Chemistry of bile acids.
7. Chemical structures and biological importance of vitamin B₁ and vitamin D.
8. Chemistry and uses of geraniol.
9. Explain Zwitter ionic nature of amino acids and iso-electric point.
10. Primary structure of proteins.
11. Pharmaceutical importance of polypeptides.
12. Inter – relationship of caffeine, theobromine, and theophylline.
13. Explain the geometry of peptide linkage.
14. Structural features and uses of insulin.
15. Explain the Hofmann exhaustive methylation method. Illustrate with examples.
16. Chemical reactions of D-glucose :
 - Osazone formation
 - Action of Ba(OH)₂
17. What are steroids and explain its nomenclature.
