

**Third Year B.Pharm Degree Supplementary Examinations July 2018**  
**PHARMACEUTICAL CHEMISTRY IV**  
**(Chemistry of Natural Products)**  
**(2010 Scheme)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Write chemical structures/equations wherever necessary.

**Essay**

**(3x10=30)**

1. Discuss in detail the structural elucidation of vitamin D
2. Explain the synthesis and uses of any two non-steroidal estrogenic compounds.
3. Explain the structural elucidation of caffeine.

**Short notes**

**(14x5=70)**

4. Determination of structure of C-terminal amino acids of peptides(end group analysis)
5. Structure and physiological role of glucagon
6. Chemistry and uses of ionones.
7. Skeletal structure and pharmaceutical uses of vitamin A and vitamin B<sub>1</sub>.
8. Discuss the method to determine the iodine value of fats and oils
9. Structure and uses of testosterone and synthetic anabolic steroids
10. Define and explain nomenclature of steroids.
11. Discuss the essential amino acids.
12. Hofmann exhaustive methylation method in degradation of alkaloids
13. Chemistry of ergosterol
14. Primary structure of proteins.
15. Configuration of monosaccharides
16. Any two methods for the synthesis of amino acids.
17. Skeletal structure and use of uric acid and progesterone

\*\*\*\*\*