

# 2012 Scheme

QP CODE: 312006

Reg. No: .....

## Third Year B.Pharm Degree Supplementary Examinations September 2024

### Pharmaceutical Chemistry IV (Chemistry of Natural Products)

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Write chemical structures/equations wherever necessary.

#### Essay

(3x10=30)

1. Explain the general methods of structural elucidation of alkaloids. Write the chemistry of morphine.
2. Classify vitamins and explain the structural elucidation and pharmaceutical uses of Vitamin D.
3. Explain the various physical properties of proteins. How the end group analysis is carried out.

#### Short notes

(14x5=70)

4. Chemistry and physiological importance of vitamin B<sub>2</sub>.
5. What is mutarotation. Give its significance.
6. Elucidate the structure of ephedrine.
7. Define isoprene rule with examples.
8. Write the SAR of cardiac glycosides.
9. Explain the ring structure of Glucose.
10. Write any three methods of preparation of amino acids.
11. Enumerate the interrelationship of caffeine, theophylline and theobromine.
12. Define saponification value and give its significance.
13. Explain the Chemistry of Cholesterol.
14. Explain the nomenclature of steroids.
15. Write the structure and uses of cortisone and hydrocortisone.
16. Give the Biological importance of prostaglandins.
17. Explain the chemistry and biological actions of triiodothyronine.

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