

# **2012 Scheme**

**QP CODE: 312006**

**Reg. No: .....**

## **Third Year B.Pharm Degree Supplementary Examinations January 2021**

### **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. Give the structures of cortisone and hydrocortisone. Explain the biological actions and uses of important synthetic corticosteroids
2. What are water soluble vitamins. Give examples with structures. Discuss the chemistry and structural elucidation of vitamin B<sub>2</sub>
3. Discuss the structural elucidation and pharmacological activity of ephedrine.

#### **Short notes**

**(14x5=70)**

4. Epimerization and mutarotation
5. Lobry De Bruyn – Van Ekenstein reaction
6. Essential amino acids
7. Primary and secondary structure of proteins.
8. Classification of terpenoids with examples.
9. Chemistry of cardiac glycosides
10. Structural elucidation of vitamin B<sub>6</sub>
11. Structural elucidation of uric acid
12. Acid value and saponification value
13. Mineralocorticoids
14. Steroidal oral contraceptive agents
15. Chemistry of bile acids
16. Classification and structures of prostaglandins
17. Synthesis of any one non-steroidal estrogenic compound

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