

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M.Pharm Semester –I Examination Feb. - 2012

Subject code: 910201

Date: 15/02/2012

Subject Name: Chemistry of Natural Products

Time: 10.30 am – 01.30 pm

Total Marks: 80

Instructions:

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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|-------------|--|-----------|
| Q.1 | (a) What are carbohydrates? Classify them with examples. | 06 |
| | (b) Discuss the structure of maltose. | 05 |
| | (c) Write a note on polysaccharides. | 05 |
| Q.2 | (a) What are steroids? Give nomenclature and stereochemistry of steroid. | 06 |
| | (b) What are purines? Give the general method of synthesis of purine. | 05 |
| | (c) What is nucleic acid? Give the structure and function of RNA. | 05 |
| Q.3 | (a) What are heterocyclic compounds? Give method of synthesis and reactions of pyridine. | 06 |
| | (b) Discuss biological importance of heterocycles. | 05 |
| | (c) Define and classify alkaloids. Discuss the structure of morphine. | 05 |
| Q.4 | (a) Define and classify proteins. Discuss the structure of proteins. | 06 |
| | (b) What are polypeptides? Give the methods of synthesis of polypeptide. | 05 |
| | (c) Discuss the structure of angiotensin II | 05 |
| Q.5 | (a) What are anthocyanins? Discuss general methods for the synthesis of anthocyanins. | 06 |
| | (b) Give the general methods of synthesis and reactions of Imidazole. | 05 |
| | (c) What are flavones and flavanoids? Give biological importance of flavones and flavanoids. | 05 |
| Q. 6 | (a) Define and classify amino acids. Discuss any three synthesis methods of amino acid. | 06 |
| | (b) Discuss the chemistry of cellulose | 05 |
| | (c) Write a note on lignin and pectin | 05 |
| Q.7 | Write short note on: | |
| | (a) SAR of glucocorticoids | 06 |
| | (b) Vitamin D ₃ | 05 |
| | (c) Phodophyllum alkaloid | 05 |
