

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.PHARM- SEM-I-EXAMINATION – JULY 2012

Subject code: 910201

Date: 07/07/2012

Subject Name: Chemistry of Natural Products

Time: 02:30 pm – 05:30 pm

Total Marks: 80

Instructions:

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

| | | |
|-------------|--|-----------|
| Q.1 | (a) Define and classify carbohydrates. Prove the structure of sucrose. | 08 |
| | (b) Describe chemistry of cellulose. | 08 |
| Q.2 | (a) What are amino acids? Enlist method of synthesis of amino acids and discuss in detail any three methods. | 08 |
| | (b) Discuss structure and chemistry of oxytocin. | 08 |
| Q.3 | (a) What are alkaloids? Classify them with example. Discuss steps involved in determination of molecular structure of alkaloids. | 08 |
| | (b) Discuss chemistry of ergotamine. | 08 |
| Q.4 | (a) What are steroids? Discuss nomenclature and stereochemistry of steroids. | 08 |
| | (b) Give the general methods of synthesis and reaction of pyrazole. | 08 |
| Q.5 | (a) Enlist five member heterocyclic ring systems and discuss biological importance of it. Write synthesis and reactions of pyrimidine. | 08 |
| | (b) Discuss chemistry of 2,6,8 trihydroxy purine. | 08 |
| Q. 6 | (a) What are anthocyanins. Discuss in detail isoflavones. | 08 |
| | (b) Write a note on cortisone. | 08 |
| Q.7 | (a) What are purines and nucleic acids. Discuss structure of nucleosides | 06 |
| | (b) Biosynthesis of vit. D ₃ | 05 |
| | (c) Structure of angiotensin. | 05 |
