

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-I Regular / Remedial Examination January/February 2011

Subject code: 910201

Subject Name: Chemistry of Natural Products

Date: 03 /02 /2011

Time: 10.30 am – 01.30 pm

Instructions:

Total Marks: 80

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

- Q.1** (a) Define & Classify Carbohydrates. Discuss oxidation reaction OR osazone formation for monosaccharide. **06**
- (b) Discuss the structure elucidation for any one disaccharide you studied. **06**
- (c) Write any one method of synthesis each for decreasing and increasing carbon in aldose series. **04**
- Q.2** (a) Define and Classify amino acids giving structure. Give any two method for synthesis of alpha amino acids. **06**
- (b) Discuss the method for structure determination of polypeptide. **06**
- (c) Write a note on “Solid phase peptide synthesis”. **04**
- Q.3** (a) Discuss in brief with mechanism Hantzsch Pyridine synthesis. **06**
- (b) Give any two methods for synthesis of Pyrimidine, Pyrrole, Thiophene. **06**
- (c) Give biological importance of heterocycles with example. **04**
- Q.4** (a) Define & Classify steroids. Discuss nomenclature and configuration of steroids. **08**
- (b) Discuss the chemistry and structure of cholesterol. **08**
- Q.5** (a) Define and classify alkaloids. Give general method for structural elucidation of alkaloids. **08**
- (b) Discuss the chemistry & structure of morphine. **08**
- Q. 6** (a) What do you mean by anthocyanins? Give its example, functions and isolation. Discuss the structure determination of anthocyanins. **10**
- (b) Write a short note on nucleic acids. **06**
- Q.7** Answer the following as directed (Attempt any four question) **16**
- (a) Discuss the structure of Proteins.
- (b) Write a note on Starch.
- (c) Write a note on Lignin & Pectin
- (d) Discuss with reaction mechanism “Fischer indole synthesis”
- (e) Give the general chemical reactions for Furan & Thiophene.
