

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Pharmacy Sem-V-Examination-Nov/Dec -2011

Subject code: 250003

Date: 24/11/2011

Subject Name: Pharmaceutical Chemistry – V (Biochemistry)

Time: 2.30 pm -5.30 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) What are carbohydrates? Give classification of carbohydrates with examples. Describe in brief chemistry of starch or glycogen. **06**
(b) Discuss the bonds responsible to maintain the structure of a protein molecule. **05**
(c) Write a note on chemical tests of fats and oils. **05**
- Q.2** (a) Describe α -helical structure of protein. **06**
(b) Give an account of chemical tests of carbohydrates. **05**
(c) Write a short note on phospholipids and glycolipids. **05**
- Q.3** (a) Give reactions of Citric Acid Cycle. **06**
(b) How is pyruvate oxidized to acetyl coenzyme A? **05**
(c) Describe electron transport chain. **05**
- Q.4** (a) Discuss pentose phosphate pathway. **06**
(b) Discuss in brief enzymes involved in biological oxidation. **05**
(c) Write an explanatory note on role of hormones in blood glucose homeostasis. **05**
- Q.5** (a) Classify enzymes on the basis of the type of reactions they catalyze with relevant examples. **06**
(b) Discuss in brief the factors affecting enzyme action. **05**
(c) Write a note on regulation of enzyme activity. **05**
- Q. 6** (a) Explain in detail active transport process. **06**
(b) Discuss in brief enzyme inhibition and isoenzyme. **05**
(c) Write short note: Transport of reducing equivalents-shuttle theory. **05**
- Q.7** (a) Give an account of gluconeogenesis. **06**
(b) How is galactose metabolized in the body? **05**
(c) Write a note on glucagone. **05**
