

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – V • EXAMINATION – WINTER • 2014

Subject Code: 250003

Date: 01-12-2014

Subject Name: Pharmaceutical Chemistry – V (Biochemistry)

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.

- Q.1** (a) Describe the classification of amino acid along with their structure. **06**
(b) Write a detailed note on alpha-helix. **05**
(c) Define polysaccharide and discuss heteropolysaccharide. **05**
- Q.2** (a) Give reactions of Krebs cycle. **06**
(b) Write a note on denaturation. **05**
(c) Write difference on following. **05**
(1) Amylase and Amylopectin
(2) Monosaccharide and Disaccharide
- Q.3** (a) Write an account of the various factors affecting enzyme activity. **06**
(b) Enumerate vitamins used as coenzymes. Discuss TPP and Methylcobalamine. **05**
(c) Explain application of enzymes. **05**
- Q.4** (a) Explain the pentose phosphate pathway in detail. **06**
(b) Write a note on Glucagon and Insulin. **05**
(c) Discuss metabolic reactions of glycolysis with aerobic energetics. **05**
- Q.5** (a) Explain galactose metabolism with related disorders. **06**
(b) Write a note on Glycogen storage disease. **05**
(c) Discuss Gluconeogenesis. **05**
- Q.6** (a) Write a note on chemical tests of fats and oils. **06**
(b) Enumerate Various cell organelles and discuss about nucleus. **05**
(c) Give structure and function of phospholipids. **05**
- Q.7** (a) Describe the uric acid pathway. **06**
(b) Describe electron transport chain. **05**
(c) Discuss transport membrane across cell membrane. **05**
