

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III • EXAMINATION – WINTER 2013

Subject Code: 130403**Date: 30-11-2013****Subject Name: Baisc Biochemistry****Time: 02:30 pm - 05:00 pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) Write a note on monosaccharide. **07**
(b) Give detail account on gluconeogenesis. **07**
- Q.2** (a) Explain about how pyruvate gives rise to ATP via TCA cycle? **07**
(b) With physiological significances explain pentose phosphate pathway. **07**
- OR**
- (b) Describe in detail about the process of ATP synthesis by ATP synthetase. **07**
- Q.3** (a) Draw a neat diagram of urea cycle with its significances. **10**
(b) Define with suitable example about glucogenic and ketogenic amino acid. **04**
- OR**
- Q.3** (a) Discuss in detail about β - oxidation of fat. **07**
(b) What do you understand by denaturation and renaturation phenomena of protein? **07**
- Q.4** (a) Define and explain the term transamination reaction with suitable reaction format. **10**
(b) Discuss about physical properties of amino acids. **04**
- OR**
- Q.4** (a) Write in detail about various structural components of nucleic acid with structure. **07**
(b) Classify the lipids based on their structural complexity. **07**
- Q.5** (a) Explain about protein structural architecture. **07**
(b) Define the term hormone with its mechanism of action for cell surface receptors. **07**
- OR**
- Q.5** (a) With structural representation draw the pathway of purine degradation. **07**
(b) Write a note on fat soluble vitamins. **07**
