

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharmacy Sem-V Examination June 2011

Subject code:250003

Subject Name: Pharmaceutical chemistry –V
(Biochemistry)

Date: 22/06/11

Total Marks: 80

Time: 10:30 am to 1:30pm

Instructions:

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

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| Q.1 | (a) Define and classify carbohydrates. Differentiate between reducing and non-reducing sugars. Add a note on reducing sugars. | 06 |
| | (b) Write a note on triglycerides. | 05 |
| | (c) Discuss aerobic glycolysis with energetics. | 05 |
| Q.2 | (a) Write a note on polysaccharides. | 06 |
| | (b) Classify proteins based on their chemical nature and solubility. | 05 |
| | (c) Define neoglucogenesis. Discuss cori's cycle. | 05 |
| Q.3 | (a) Write about HMP shunt pathway. | 06 |
| | (b) Explain about amphibolic nature of citric acid cycle. | 05 |
| | (c) Explain role of hormones in maintenance of blood sugar level. | 05 |
| Q.4 | (a) Explain mechanism of enzymatic action. | 06 |
| | (b) Write about concept of enzyme inhibition. | 05 |
| | (c) Explain diagnostic application of enzymes. | 05 |
| Q.5 | (a) Explain how galactose and fructose are metabolised in our body. Add a note on abnormal metabolic disorders related to them. | 06 |
| | (b) Discuss the process of active transport across cell membrane. | 05 |
| | (c) Enumerate various cell organelles and discuss about mitochondria. | 05 |
| Q. 6 | (a) Enumerate vitamins used as coenzymes. Discuss any two of them. | 06 |
| | (b) Explain properties of amino acids. | 05 |
| | (c) Write a note on lipoproteins. | 05 |
| Q.7 | (a) Define bioenergetics and discuss concept of free energy. | 06 |
| | (b) Write a note on energy rich compounds and their significance. | 05 |
| | (c) Explain role of metals as coenzymes. | 05 |
