

GUJARAT TECHNOLOGICAL UNIVERSITY
D. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2014

Subject Code: 410004**Date: 31-12-2014****Subject Name: Biochemistry and Clinical Pathology****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.

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| Q.1 | (a) | What are amino acids? Classify them with suitable examples. | 06 |
| | (b) | What is Glycolysis? Describe various reactions of glycolysis process. | 05 |
| | (c) | Write notes on digestion, absorption and transport of lipids to liver. | 05 |
| Q.2 | (a) | What are Vitamins? Write structure formula, source, biochemical role and deficiency symptoms of Vitamin H and K. | 06 |
| | (b) | Write a note on enzyme specificity. | 05 |
| | (c) | Explain in detail about “Dehydration.” | 05 |
| Q.3 | (a) | Define Protein. Classify them with examples. | 06 |
| | (b) | Write a note on enzyme inhibition | 05 |
| | (c) | What is the importance of blood platelets in blood clotting process? Outline the role of erythrocytes in the human body | 05 |
| Q.4 | (a) | Discuss chemical properties of monosaccharide. | 06 |
| | (b) | Write role of calcium and phosphorus in human body. | 05 |
| | (c) | Discuss step involved in biosynthesis of cholesterol. | 05 |
| Q.5 | (a) | What is β – oxidation? Write steps involved in β – oxidation. | 06 |
| | (b) | Outline the steps involved in conversion of Pyruvic acid to Acetyl CoA. | 05 |
| | (c) | Discuss physical and chemical properties of amino acids. | 05 |
| Q. 6 | (a) | Discuss factors affecting enzyme activity. | 06 |
| | (b) | Explain in detail about kreb’s cycle. | 05 |
| | (c) | Write importance of coenzyme in enzyme activity. | 05 |
| Q.7 | (a) | What is difference between T and B Lymphocytes? Give the consequences of their abnormalities in human body. | 06 |
| | (b) | Give biochemical steps involved as a result of removal of ammonia from blood and formation of urea in liver. | 05 |
| | (c) | Discuss disorders of lipid metabolism. | 05 |
