

GUJARAT TECHNOLOGICAL UNIVERSITY
Pharm D – 1st Year • EXAMINATION – SUMMER - 2017

Subject Code: 818803**Date: 31/05/2017****Subject Name: Medicinal Biochemistry****Time: 10:30 AM to 1:30 P.M****Total Marks: 70****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 enzymes. Discuss the various factors affecting enzyme activity. | 06 |
| | (b) Write a note on cyclic AMP and their biological significance. | 04 |
| | (c) Describe reactions of beta oxidation. | 04 |
| Q.2 | (a) Explain TCA cycle in detail with its energetics. | 06 |
| | (b) Write a note on transport processes across the cell membrane. | 04 |
| | (c) What are HDL and LDL cholesterol? Explain a method for their determination. | 04 |
| Q.3 | (a) What are coenzymes? Describe the biochemical role of TPP and FMN. | 06 |
| | (b) Describe ELISA test in detail. | 04 |
| | (c) Define electrolytes. Outline a method for the determination of calcium and potassium in body fluids. | 04 |
| Q.4 | (a) Describe urea cycle in detail. Enumerate its major metabolic disorders. | 06 |
| | (b) Explain dye tests for the excretory functions. | 04 |
| | (c) Write a note on oxidative phosphorylation. | 04 |
| Q.5 | (a) What are isoenzymes? Discuss the diagnostic applications of isoenzymes in detail. | 06 |
| | (b) Write a short note on ETC chain. | 04 |
| | (c) What is mutation? Describe its repair mechanism. | 04 |
| Q. 6 | (a) Describe the reactions and significances of HMP shunt pathway. | 06 |
| | (b) Explain semiconservative replication of a double stranded DNA with its diagram. | 04 |
| | (c) Define the following terms:
(i) Gluconeogenesis (ii) Atherosclerosis (iii) Fatty liver (iv) Ketosis | 04 |
| Q.7 | (a) Describe liver function test for bile pigments and abnormalities of serum proteins. | 06 |
| | (b) Explain the kidney function test for NPN constituents. | 04 |
| | (c) Define the following terms:
(i) Porphoria (ii) Jaundice (iii) Point mutation (iv) Universal codon | 04 |
