

GUJARAT TECHNOLOGICAL UNIVERSITY
Pharm D – 1st Year • EXAMINATION – WINTER - 2023

Subject Code: 818803**Date: 16/01/2024****Subject Name: Medicinal Biochemistry****Time: 10:30 AM to 1:30 PM****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) Explain the biosynthesis of purine nucleotides. | 06 |
| | (b) Write a note on production of ATP and their biological significances. | 04 |
| | (c) Describe transport processes across the cell membranes. | 04 |
| Q.2 | (a) Explain urea cycle. Enlist the various disorders related with it. | 06 |
| | (b) Give the mechanism of enzyme action. | 04 |
| | (c) “DNA replication is semiconservative” justify the sentence. | 04 |
| Q.3 | (a) Explain citric acid cycle. | 06 |
| | (b) What is translation? Discuss the different steps involved in it. | 04 |
| | (c) Give the therapeutic and diagnostic applications of isoenzymes. | 04 |
| Q.4 | (a) Explain the following: (i) Role of clinical chemistry laboratory (ii) Kidney function test for NPN constituents. | 06 |
| | (b) Discuss HMP shunt pathway. | 04 |
| | (c) Explain the determination of sodium and chloride in the body fluids. | 04 |
| Q.5 | (a) Enlist the various liver function tests. Discuss about dye test of excretory function. | 06 |
| | (b) Explain DNA repair mechanism. | 04 |
| | (c) Explain the various factors affecting enzyme activity. | 04 |
| Q. 6 | (a) Explain β -oxidation of fatty acids along with its energetics. | 06 |
| | (b) Write a note on glycogen storage diseases. | 04 |
| | (c) Define the following terms: (i) Porphoria (ii) Jaundice (iii) Ketosis (iv) Gluconeogenesis | 04 |
| Q.7 | (a) Explain ELISA test with its importance. | 06 |
| | (b) Write a short note on: (i) ETC (ii) Body water balance | 04 |
| | (c) What is LDL cholesterol? Explain the method for their determination. | 04 |
