

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PHARM.D YEAR-1 EXAMINATION – WINTER-2019**

**Subject Code: 818803**

**Date: 16/11/2019**

**Subject Name: Medicinal Biochemistry**

**Time: 02:30 PM TO 05:30 PM**

**Total Marks: 70**

**Instructions:**

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

- Q.1** (a) Explain biochemical role and deficiency diseases of coenzymes. **06**  
(b) Explain transport process across the cell membranes. **04**  
(c) Write in brief **04**  
(i) Enzyme inhibition (ii) Significance of galactose tolerance test.
- Q.2** (a) Discuss citric acid cycle with energetics. **06**  
(b) Write about glycogen storage diseases. **04**  
(c) Write about hormonal regulation of carbohydrate metabolism. **04**
- Q.3** (a) Discuss defective metabolism of lipids. **06**  
(b) Explain ketone bodies formation with its regulations. **04**  
(c) Discuss  $\beta$ -oxidation of fatty acid with its energetics **04**
- Q.4** (a) Discuss components and reactions of Electron Transport Chain. **06**  
(b) Define (i) Nitrogen base (ii) Nucleic acid (iii) Nucleoside (iv) Nucleotide **04**  
(c) Discuss metabolic disorders of amino acids. **04**
- Q.5** (a) Discuss Urea cycle and its metabolic disorders. **06**  
(b) Discuss deamination and transamination. **04**  
(c) Discuss metabolism of pyrimidine nucleotides. **04**
- Q. 6** (a) What are phospholipids? Classify them and write the functions of phospholipids. **06**  
(b) Discuss ATP-ADP cycle and give bio-significance of ATP **04**  
(c) Discuss role of water and water balance. **04**
- Q.7** (a) Explain followings. **06**  
(i) ELISA. (ii) Composition and functions of lipoproteins.  
(b) Enumerate functions of liver. Write tests to assess liver functions. **04**  
(c) Enumerate functions of kidney. Write tests to assess renal functions. **04**

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