

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – SUMMER 2013

Subject Code: 260003

Date: 28-05-2013

Subject Name: Pharmaceutical Chemistry-VII (Biochemistry)

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) Explain Krebs-Henseleit cycle with its metabolic disorders. | 06 |
| | (b) Enlist the sulfur containing aminoacids. Explain degradation of sulfur containing essential aminoacid. | 05 |
| | (c) Discuss biosynthesis of Porphyrin. | 05 |
| Q.2 | (a) Discuss in detail Cholesterol biosynthesis. | 06 |
| | (b) Write about biosynthesis and utilization of Ketonebodies. | 05 |
| | (c) Write a note on β -oxidation of fattyacids. | 05 |
| Q.3 | (a) Describe in detail transamination and deamination reactions for aminoacid metabolism. | 06 |
| | (b) Give detail account on enzymes involved in biological oxidation. | 05 |
| | (c) Discuss reactions of the electron transport chain in detail. | 05 |
| Q.4 | (a) Explain mechanism of oxidative phosphorylation. | 06 |
| | (b) Write a detail note on Lac operon. | 05 |
| | (c) Discuss Polymerase chain reaction in detail. | 05 |
| Q.5 | (a) Give detail account on DNA replication in eucaryotes. | 06 |
| | (b) Enlist the techniques used in biochemistry and explain chromatography in detail. | 05 |
| | (c) Discuss Gene expression in eucaryotes in detail. | 05 |
| Q.6 | (a) Write a note on damage and repair of DNA. | 06 |
| | (b) Write a note on distribution of water and water balance in humans. | 05 |
| | (c) Define the following terms: | 05 |
| | (1) HTH motif (2) Centrifugation (3) Nucleotide | |
| | (4) Hyperbilirubinemia (5) Transcription | |
| Q.7 | (a) Write a note on inhibitors of protein biosynthesis. | 06 |
| | (b) Write a shortnote on pyrimidine biosynthesis. | 05 |
| | (c) Discuss biochemical importance of calcium and write its metabolic disorders. | 05 |
