

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2014

Subject Code: 260003

Date: 26-12-2014

Subject Name: Pharmaceutical Chemistry-VII (Biochemistry)

Time: 02:30 pm - 05:30 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) Discuss about oxidative phosphorylation. | 06 |
| | (b) Write a detail note on Lac operon. | 05 |
| | (c) Discuss Polymerase chain reaction in detail. | 05 |
| Q.2 | (a) Define Recombinant DNA technology. Write a note on Genetic Engineering. | 06 |
| | (b) Write brief note on replication of DNA. | 05 |
| | (c) Write a short note on Genetic code. | 05 |
| Q.3 | (a) Discuss purine biosynthesis. Explain purine nucleotide interconversion. | 06 |
| | (b) Discuss metabolism of sulphur containing amino acids. | 05 |
| | (c) Explain urea cycle with its metabolic disorders | 05 |
| Q.4 | (a) Write short note on followings.
1. Water balance 2. Southern blotting technique | 06 |
| | (b) Discuss the electrophoresis in detail. | 05 |
| | (c) Write note on DNA repair mechanisms. | 05 |
| Q.5 | (a) Discuss biochemical importance of calcium and write its metabolic disorders. | 06 |
| | (b) Give detail account on enzymes involved in biological oxidation. | 05 |
| | (c) Write a note on β –oxidation of fattyacids. | 05 |
| Q. 6 | (a) Describe biosynthetic pathway of cholesterol. | 06 |
| | (b) What are ketone bodies? Write note on ketogenesis along with its regulations. | 05 |
| | (c) Discuss about respiratory chain with its role as energetic. What are the respiratory chain inhibitors? | 05 |
| Q.7 | (a) Discuss biosynthesis of Porphyrin. | 06 |
| | (b) Discuss in detail isolation and purification of nucleic acids. | 05 |
| | (c) What are the importances of bile pigments in human body? How it is formed and what are the implications of its metabolic disorders. | 05 |
