

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-IV • EXAMINATION – SUMMER-2018

Subject Code:2240003**Date:23/05/2018****Subject Name: Pharmaceutical Chemistry – V (Biochemistry – II)****Time: 10:30 AM TO 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.

- Q.1** (a) Enumerate various mechanism of oxidative phosphorylation and discuss chemiosmotic hypothesis in detail **06**
(b) Explain Urea Cycle along with its energetics **05**
(c) Write a short note on enzymes involve in biological oxidation **05**
- Q.2** (a) What is PCR? Write detail note about it with its application **06**
(b) Write note on inhibitors of Oxidative phosphorylation **05**
(c) Write about transamination and deamination reactions of amino acids **05**
- Q.3** (a) Describe the following terms : Gene, Chromosome, Nucleotide , Bioenergetics, zwitterions, Poly peptide **06**
(b) Discuss reactions of De Novo synthesis of Purine nucleotides **05**
(c) Write a note on isolation of nucleic acid **05**
- Q.4** (a) Explain in detail DNA replication process. **06**
(b) Describe secondary and tertiary structure of protein. **05**
(c) Describe porphyrin biosynthesis and define hyperbilirubinemia. **05**
- Q.5** (a) What is genetic code? Explain its characteristics in detail. **06**
(b) Discuss concept of Free – Energy. **05**
(c) Write a short note on Translation process. **05**
- Q. 6** (a) Discuss components and reactions of Electron Transport Chain. **06**
(b) Write a short note on Post Transcriptional Modification of mRNA **05**
(c) Classify protein according to their biological functions **05**
- Q.7** (a) Write a short note on gel electrophoresis. **06**
(b) Define and classify amino acids along with examples. **05**
(c) Discuss ATP – ADP cycle and give biosignificance of ATP. **05**
