

GUJARAT TECHNOLOGICAL UNIVERSITY

B. PHARM – SEMESTER IV • EXAMINATION – WINTER • 2015

Subject code: 2240003

Date: 12-01-2016

Subject Name: Pharmaceutical Chemistry - V (Biochemistry-II)

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) What is Protein? Classify it with example. | 06 |
| | (b) Discuss in detail about Post Transcription Modification. | 05 |
| | (c) Write a Short Note on denaturation of Protein. | 05 |
| Q.2 | (a) Explain in brief metabolism of sulphur containing amino acids. | 06 |
| | (b) Write a short note on chromatography. | 05 |
| | (c) What is Amino Acid? Classify it by giving example. | 05 |
| Q.3 | (a) Define oxidative phosphorylation. Discuss inhibitors of oxidative phosphorylation. | 06 |
| | (b) Write a note on ETC. | 05 |
| | (c) Write in detail about enzymes involved in biological oxidation. | 05 |
| Q.4 | (a) Write about reaction and energetic of Krebs-Henseleit cycle. | 06 |
| | (b) Describe in detail transamination and deamination reactions for amino acids metabolism. | 05 |
| | (c) Discuss the pyrimidine biosynthesis with its regulation. | 05 |
| Q.5 | (a) Describe de novo synthesis of purine nucleus and conversion of IMP to AMP and GMP. | 06 |
| | (b) What is the importance of bile pigments in human body? How it is formed and what are the implications of its metabolic disorders. | 05 |
| | (c) Write about the reactions involved in the heme biosynthesis. | 05 |
| Q. 6 | (a) What is replication? Why DNA replication is called semi-conservative. Explain the role of DNA polymerase, DNA ligase and DNA helicase in the replication of prokaryotes. | 06 |
| | (b) Give detail account on Operon Concept. | 05 |
| | (c) Discuss in detail about electrophoresis. | 05 |
| Q.7 | (a) Write a note on gene expression in eukaryotes. | 06 |
| | (b) Write note on DNA repair mechanisms. | 05 |
| | (c) Discuss in detail isolation and purification of nucleic acids. | 05 |
