

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – IV • EXAMINATION – SUMMER • 2015

Subject Code: 2240003

Date: 08-06-2015

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

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 metabolism of sulphur containing amino acid: Cysteine. | 06 |
| | (b) Discuss transamination of aminoacids. | 05 |
| | (c) Give classification of protein in detail. | 05 |
| Q.2 | (a) Explain biosynthesis of Pyrimidine Ribonucleotides. | 06 |
| | (b) Discuss the Watson and Crick model of DNA structure. | 05 |
| | (c) Explain nucleotides. | 05 |
| Q.3 | (a) Write a note on Jaundice. | 06 |
| | (b) Why replication is termed as semiconservative, semi-discontinuous and bidirectional? | 05 |
| | (c) Explain transcription. | 05 |
| Q.4 | (a) Explain Polymerase chain reaction. | 06 |
| | (b) Discuss Genetic code with its characteristics. | 05 |
| | (c) Give diagrammatical explanation of initiation of protein synthesis. | 05 |
| Q.5 | (a) Discuss spectrophotometric techniques utilized in biochemistry. | 06 |
| | (b) Give detail account on operon concept. | 05 |
| | (c) To which specialized products amino acids get converted? How? | 05 |
| Q. 6 | (a) Explain with suitable example about different enzymes and coenzymes involved in biological oxidation and reduction reactions. | 06 |
| | (b) Explain ATP-ADP Cycle along with sources and utilization of ATP. | 05 |
| | (c) What is oxidative phosphorylation? Explain P: O ratio, sites of oxidative phosphorylation in ETC and energetic of oxidative phosphorylation. | 05 |
| Q.7 | (a) Discuss components and reactions of the electron transport chain. | 06 |
| | (b) Discuss ampholytic properties of aminoacids. | 05 |
| | (c) Explain secondary structure of protein. | 05 |
