

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-III • EXAMINATION – WINTER -2021

Subject Code: BP303TP

Date: 19/02/2022

Subject Name: BIOCHEMISTRY

Time: 10:30AM to 01:30PM

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) Write down electron transport chain and its mechanism. | 06 |
| | (b) Write about formation and utilization of ketone bodies. | 05 |
| | (c) Write down therapeutic and diagnostic applications of enzymes. | 05 |
| Q.2 | (a) Define Carbohydrate. Discuss Classification and biological roles of Carbohydrate. | 06 |
| | (b) Write down biological significances of steroidal hormones. | 05 |
| | (c) Write down biological significances of ATP and cAMP. | 05 |
| Q.3 | (a) Write a note on HMP shunt and its significances. | 06 |
| | (b) Write down biosynthesis and Catabolism of Purine nucleotide. | 05 |
| | (c) Write about enzyme inhibitors with suitable examples. | 05 |
| Q.4 | (a) Write about concept of free energy. Discuss endergonic and exergonic reaction. | 06 |
| | (b) Define Lipids. Write down biological importance of lipids. | 05 |
| | (c) Explain structure of DNA and RNA. | 05 |
| Q.5 | (a) Discuss synthesis and significances of Dopamine, Noradrenalin and Adrenalin. | 06 |
| | (b) Write about β -Oxidation of saturated fatty acid. | 05 |
| | (c) Write down various steps in protein synthesis. | 05 |
| Q. 6 | (a) Define Enzymes. Write down properties and IUB classifications of enzymes. | 06 |
| | (b) Explain about Hyperuricemia and Gout diseases. | 05 |
| | (c) Define gluconeogenesis. Discuss its pathway and significance | 05 |
| Q.7 | (a) Write about various disorders of lipid metabolisms. | 06 |
| | (b) Write a note on catabolism of heme. | 05 |
| | (c) Discuss structure and biochemical functions of Co-enzymes. | 05 |
