

(i) Printed Pages : 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

0	9	7	2
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Exam. Code : 

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**B.Sc. (Hons.) Biotechnology 3<sup>rd</sup> Semester**  
**(2122)**

**BIOCHEMISTRY**

**Paper : BIOT-301-T**

**Time Allowed : Three Hours]**

**[Maximum Marks : 67**

**Note :—** Attempt **FIVE** questions in all. Q. 1 is compulsory. Select **ONE** question from each unit.

- |        |   |   |
|--------|---|---|
| 1. (a) | What is end product inhibition ?            | 3 |
| (b)    | What is glycogenolysis ?                    | 3 |
| (c)    | What is ATPase ?                            | 2 |
| (d)    | What is the role of ketone bodies ?         | 3 |
| (e)    | Name the amino acid precursor for dopamine. | 2 |
| (f)    | What is the role of transaminase enzyme ?   | 2 |

**UNIT—I**

- |        |  |   |
|--------|--|---|
| 2. (a) | Discuss the role of activated carriers in metabolism.  | 6 |
| (b)    | Discuss the role of ATP as a preferred energy carrier. | 7 |
| 3. (a) | Discuss the evolution of metabolic pathways.           | 7 |
| (b)    | Discuss different types of metabolic pathways.         | 6 |

## UNIT—II

4. Discuss the reactions in Kreb's cycle. Discuss their regulation. 13
5. (a) Discuss the feeder pathway for mannose. 5
- (b) Discuss mechanism of oxidative phosphorylation. 8

## UNIT—III

6. (a) Describe the beta oxidation pathway for unsaturated fatty acids. 7
- (b) Discuss the synthesis and significance of ketone bodies. 6
7. Discuss the steps in synthesis of fatty acids and regulation of the same. 13

## UNIT—IV

8. (a) Discuss the synthesis of asparagine. 5
- (b) Discuss the formation of porphyrin ring from amino acids. 8
9. (a) Discuss the reactions in salvage pathway. 7
- (b) Discuss the breakdown pathway for CMP. 6