



SE Sem-III (Bio.Tech)
~~Applied~~ Biochemistry
III Sem

BT (Rev)

26

QP Code : NP-18634

(3 hours)

[Total Marks : 80

- N.B. (1) Questions no. 1 is compulsory.
(2) Answer any three questions of remaining five questions.
(3) Explain with suitable diagram wherever necessary.

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| 1. | (a) Define pH. Differentiate between an acid and a base. | 5 |
| | (b) Explain the significance of double reciprocal plot. | 5 |
| | (c) Explain double helical structure of DNA. | 6 |
| | (d) Explain what are energy rich compounds. | 4 |
| 2. | (a) Explain the steps involved in the glycolysis cycle with the bioenergetics. | 14 |
| | (b) Explain the classification of carbohydrates. | 6 |
| 3. | (a) Explain fatty acid oxidation. | 10 |
| | (b) Explain transamination with its mechanism. | 10 |
| 4. | (a) Explain different properties of triacylglycerols. | 12 |
| | (b) What are amino acids ? Explain their structural features. | 8 |
| 5. | (a) Describe Henderson Hasselbalch equation. | 6 |
| | (b) Discuss the classification of enzymes. | 6 |
| | (c) Explain in detail the primary, secondary and tertiary structure of proteins. | 8 |
| 6. | (a) What are vitamins ? Explain the detailed classification of vitamins. | 8 |
| | (b) What are the stages involved in β - oxidation of fatty acids. | 12 |