

Date

25/11/13

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11-11-2013-DTP-P-8-PM-14

Biotechnology Sem III (CBSQS)

Con. 7869 - 13.

Biochemistry

GX-12058

(3 Hours)

32

[Total Marks : 80

- N.B. : (1) Question No. 1 is compulsory.
(2) Attempt any three questions out of remaining questions.
(3) Assume suitable data wherever necessary.

1. (a) Discuss the classification of enzymes. 8
- (b) Write a note on the role of amino acids as biologically important molecules. 7
- (c) Differentiate between cyclic photophosphorylation and non-cyclic photophosphorylation. 5
2. (a) Explain transamination with its mechanism. 10
- (b) Explain the steps involved in glycolysis cycle with the bio energetics. 10
3. (a) State I and II law of thermodynamics and give the drawback of 1st law of thermodynamics. 5
- (b) What are energy rich compounds? Explain. 5
- (c) Describe Henderson Hasselbalch equation. 5
- (d) Explain covalent and non-covalent bonds. 5
4. (a) Explain in detail the primary, secondary and tertiary structure of proteins. 12
- (b) What are Vitamins ? Explain the detailed classification of vitamins. 8
5. (a) Describe the structure of DNA in detail. 10
- (b) Explain electron transport chain. 10
6. (a) Discuss the important biologically active peptides. 10
- (b) Describe Urea cycle. 10