

17/5/15

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KT | $\frac{S.E}{III}$ | BT | CBAS |
Chem.

Biochemistry

QP Code : 4938

(3 Hours)

[Total Marks: 60]

- N.B.** 1) Q.No. 1 is compulsory.
2) Attempt any 3 questions from Q.No. 2 to 6.
3) All questions carry equal marks

- Q1. Answer the following (any 4):- [20]
a. Define Buffer. What is its role in a biological system?
b. Explain the structure and function of tRNA.
c. What are Hormones? Explain the function and mechanism of action of any one hormone
d. Give an account of the tertiary structure of proteins
e. How does substrate concentration affect the enzyme activity?
- Q2. Give structure and functions of the following: [20]
a. Sphingolipids
b. Ribosomes
c. Hemoglobin
d. Amylose
- Q3. a. What are enzymes? Give its classification. Why does pH affect the function of an enzyme? [10]
b. What are vitamins? Give its classification and explain in brief their role in metabolism. [10]
- Q4. Describe in detail the following pathways (any 2). [20]
a. Glycolysis
b. Explain Fatty Acid Oxidation
c. Urea Cycle
- Q5. a. Give an account of cyclic and non-cyclic Photophosphorylation [10]
b. Explain the process of digestion of lipids by the GI enzymes. [10]
- Q6. a. Explain the following terms: [20]
i. Energy rich compounds
ii. Entropy
iii. Hydrogen Bonds
iv. Titration curve

JP-Con. 8913-15.