

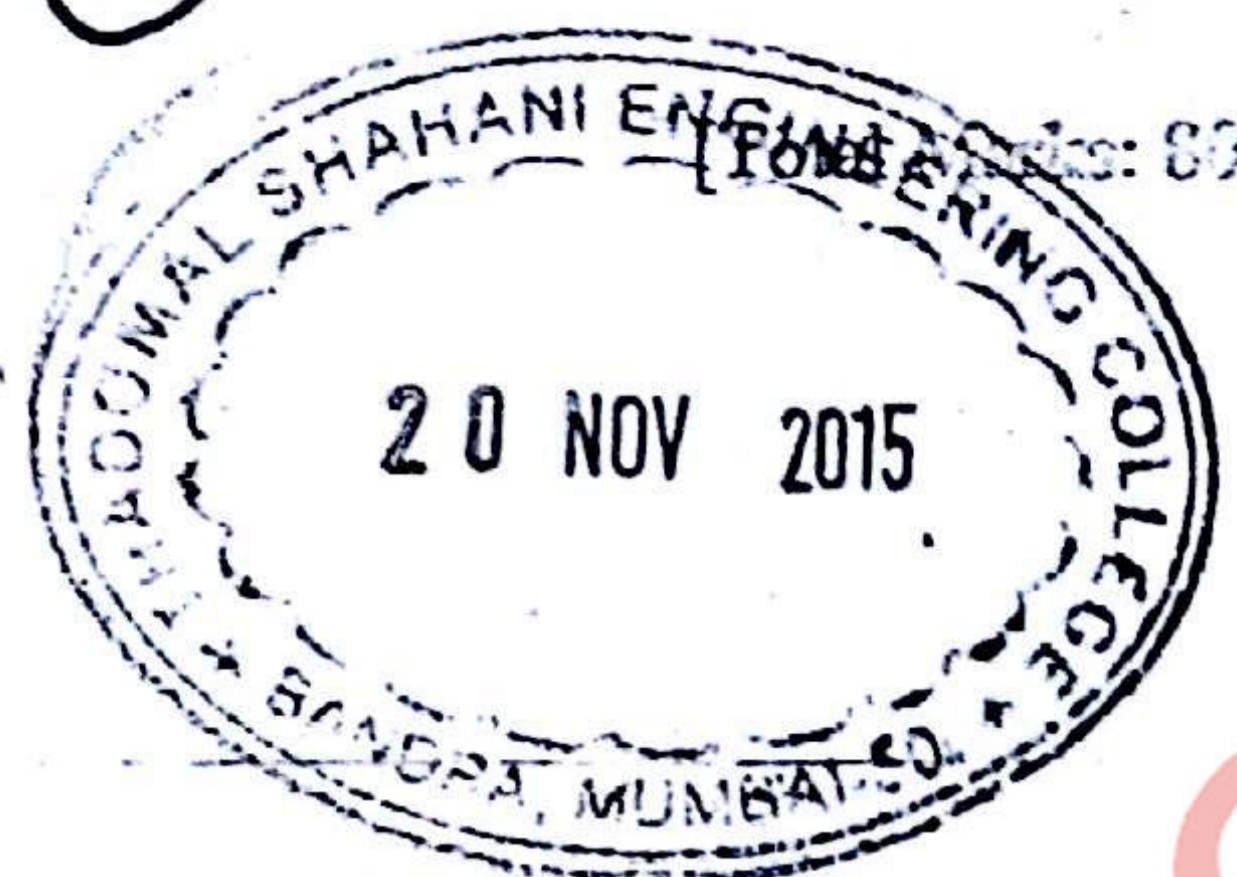
Biochemistry

SE/BT/CBAS/Biochem

Q.P. Code : 5888

21

(3 Hours)



- 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. Give an account of the non-covalent interactions in biological systems.
 b. Differentiate between: α -DNA, β -DNA and γ -DNA.
 c. Explain the energy transitions that occur during an enzyme-substrate reaction.
 d. Explain: Oxidative Deamination in amino acid metabolism
 e. What are Hormones? Give its classification.
- Q2. Give structure and functions of the following: [20]
 a. Ribosomes
 b. Amylopectin
 c. Chylomicron
 d. Keratin
- Q3. a. With the help of suitable examples explain the role of vitamins in metabolism. [10]
 b. Enzymes require specific pH and temperature conditions for their optimum activity. Justify. [10]
- Q4. Describe in detail the following pathways (any 2). [20]
 a. Electron Transport Chain
 b. Z-Pathway
 c. Urea Cycle
- Q5. a. Explain the stages of Fatty acid oxidation. [10]
 b. Does the end product of Glycolysis directly enter the TCA cycle? Justify your answer and outline the reactions involved in the TCA cycle. [10]
- Q6. a. Explain the following terms: [20]
 i. Aromatic amino acids
 ii. Second Law of Thermodynamics
 iii. ATP as an energy currency
 iv. Buffers