



(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 182404**

Roll No.

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## B. Tech.

(SEM. IV) THEORY EXAMINATION, 2014-15  
**FOOD BIOCHEMISTRY**

Time : 3 Hours]

[Total Marks : 100

- Note :**
- (1) Attempt all questions.
  - (2) All questions carry equal marks.

1. Attempt any four of the following :  $4 \times 5 = 20$ 
  - (a) Differentiate between biological catalyst and chemical catalyst.
  - (b) What is line weaver burk plot. Why it is preferred over michaelis Menten plot?
  - (c) Discuss Enzyme inhibition.
  - (d) How Enzyme activity is assayed? Define unit of enzyme and specific activity.
  - (e) Discuss the effect of temperature and pH on enzyme activity.
  - (f) With suitable examples, discuss the enzyme classification.

2. Write short notes on any four of the following :  $4 \times 5 = 20$
- (a) Digestive enzymes and their sources.
  - (b) Membrane transport system.
  - (c) Digestion of lipids.
  - (d) Enzymatic routes for initial degradation of carbohydrates.
  - (e) Absorption of fat from intestines.
  - (f) Regulation of Proteolytic enzymes.
3. Attempt any two of the following :  $2 \times 10 = 20$
- (a) Describe phosphate pentose pathway and its objective.
  - (b) Discuss  $\beta$ -oxidation of fat and outline major steps of palmitic acid breakdown.
  - (c) Discuss transamination and Deamination reaction in protein metabolism.
4. Attempt any two of the following :  $2 \times 10 = 20$
- (a) Explain the term Growth, Maturation, Ripening and Senescence with respect to fruits and vegetables.
  - (b) Enlist and discuss any five important changes that occur during ripening in fruits.
  - (c) Explain Rigor mortis Discuss the effect of postmortem changes on the quantity attributes of meat.

5. Attempt any two of the following :  $2 \times 10 = 20$
- (a) Discuss useful role of enzymes in food processing.
  - (b) Explain the role of enzymes in brewing and bakery industry.
  - (c) Comment on meat tenderizing enzymes.
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