

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

Paper ID : 182406

Roll No.

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B.TECH.

Theory Examination (Semester-IV) 2015-16

FOOD BIOCHEMISTRY

Time : 3 Hours

Max. Marks : 100

Section-A

1. **Attempt all parts. All parts carry equal marks. Write answer of each part in short.** (2×10 = 20)

- (a) Define Active Site of an enzyme.
- (b) What do you understand by Apo-Enzyme?
- (c) Define Michaelis-Menten constant.
- (d) Enlist the types of inhibition in enzymes.
- (e) What do you mean by peristalsis?
- (f) Differentiate between Catabolism and Anabolism.
- (g) Define senescence.

- (h) What do you understand by ripening of fruits?
- (i) Differentiate between Climacteric and Non Climacteric fruits.
- (j) Define Rigor Mortis.

Section-B

2. Attempt any five questions from this section.

(10×5 = 50)

- (a) Discuss the effect of temperature and pH on enzyme activity.
- (b) Describe how Michaelis Menten constant K_m is experimentally determined.
- (c) Discuss the digestion and absorption of Fat in humans.
- (d) Explain the Fluid Mosaic Model of membrane.
- (e) Discuss β -oxidation of fat and outline major steps of palmitic acid breakdown.
- (f) Discuss the Glycolysis reaction and give the stoichiometry of glycolysis.

- (g) Discuss the postharvest changes in fruits and vegetables and its impact on their quality attributes.
- (h) Explain Rigor mortis & discuss the effect of postmortem changes on the quality attributes of meat.

Section-C

Attempt any two questions from this section. (15×2 = 30)

- 3. Explain Line-weaver Burk plot? Why it is preferred over Michaelis-Menton plot for determination of K_m .
- 4. Discuss energy yielding reactions in the complete oxidation of a glucose molecule to H_2O & CO_2 .
- 5. Explain role of endogenous enzymes in food processing. Discuss the advantages of using enzyme in food processing..