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NFT-402

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

PAPER ID : 182407

Roll No.

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B.Tech. (Semester-IV)

SPL. THEORY EXAMINATION, 2014-15

FOOD BIOCHEMISTRY & BIOTECHNOLOGY

Time : 3 Hours]

[Total Marks : 100

Note: Attempt all questions. All questions carry equal marks

1. Attempt any four of the following: 4×5=20
- a) Discuss Enzyme nomenclature system.
 - b) Discuss the enzyme classification with examples.
 - c) Describe effect of substrate concentration on enzyme activity.
 - d) Discuss competitive inhibition of Enzymes.
 - e) How enzyme activity is affected by Temperature & pH.
 - f) Define Co-factors and discuss its types.

2. Write short notes on any four of the following: $4 \times 5 = 20$

- Gastro-intestinal tract.
- Digestive enzymes & their role.
- Proteolytic enzymes & their zymogen forms.
- Active transport system.
- Enzymatic routes for initial degradation of carbohydrates.
- Absorption of fat from intestines.

3. Attempt any two of the following: $2 \times 10 = 20$

- Explain Glycolysis reaction and its importance.
- Explain how Palmitic acid is broken down by β -oxidation.
- Explain with reactions how and where ATP molecules are generated TCA cycle.

4. Attempt any two of the following: $2 \times 10 = 20$

- Explain the term Growth, Maturation, Ripening & Senescence in fresh agricultural produce.
- Enlist & discuss five important changes that occur during ripening of fleshy fruits.
- Discuss aging & tenderization in meat.

5. Attempt any two of the following: $2 \times 10 = 20$

- Discuss the advantages of enzyme application in food processing.
- Comment on role of enzyme in Bakery and Brewing Industry.
- Explain how endogenous enzymes are useful in the modification of food.

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