

# KERALA AGRICULTURAL UNIVERSITY

B.Tech (Food.Engg) 2013 Admission  
II<sup>nd</sup> Semester Final Examination- June -2014

Cat. No: Fdqu.1201

Title: Fundamentals of Biochemistry (2+1)

Marks: 50.00

Time: 2 hours

## I Fill up the blanks / State True or False

(10 x 1=10)

1. \_\_\_\_\_ is a reducing sugar
2. The amino acid \_\_\_\_\_ is involved in the information of disulphide bonds
3. The protein present in milk is \_\_\_\_\_
4. \_\_\_\_\_ is an essential fatty acid
5. The coenzymic form of nicotinic acid is \_\_\_\_\_
6. Oleic acid is a structured fatty acid
7. Pyruvic acid is the end product of glycolysis under aerobic conditions
8. Iodine number indicates the degree of unsaturation of a lipid
9. TCA cycle is an amphibolic pathway
10. Cellulose is a polymer of  $\alpha - D$  glucose units

## II Write short notes on any FIVE questions

(5x 2=10)

1. Transamination
2. Oligosaccharides
3. Nutritional quality of milk
4. Pectins
5. Lipases
6. Trypsin
7. Inhibitors of cellular respiration

## III Write short notes on any FIVE questions

(5x 4=20)

1. Give the classification of enzymes with examples
2. Explain the chemical properties of carbohydrates
3. Write a short essay on compound lipids
4. Classify protein based on their solubility
5. What are the applications of immobilized enzymes
6. Explain the metabolic inter-relationship
7. Outline the reaction of TCA cycle

(1x 10=10)

**III Write essay on any ONE questions**

1. Explain the mechanism of enzyme action. Discuss the influence of various factors affecting enzyme action
2. Describe the structure of protein with reference to primary, secondary ,tertiary and quaternary structure

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