

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Ag. 2013 Admission

IInd Semester Final Examination- August-2014

Cat. No: Ssac.1202

Marks: 50

Title: Agricultural Biochemistry (2+1)

Time: 2 hours

I) Fill up the blanks /State True or False/Choose the correct Answer

(10 x 1=10)

1. _____ amino acid induces synthesis of flower and fruit related hormone
2. _____ is the essential fatty acid having 18 carbon atoms and three double bonds
3. Glycolysis takes place in _____ of the cell
4. _____ amino acids helps in proper ripening of fruits
5. Pectin is present in cell wall of bacteria(T/F)
6. Snake venom is a protein(T/F)
7. Oleic acid is a mono unsaturated fatty acid(T/F)
8. _____ is not included in ketone body
 - a.) Acetoacetate
 - b.) B-hydroxybutrate
 - c) Acetone
 - d) Acetyl CoA
9. The Michaelis Menton constant (k_m) is
 - a) Maximum velocity that any given enzyme reaction can achieve
 - b) Substrate concentration which gives the best enzyme assay for an enzyme reaction
 - c) Substrate concentration when the reaction is half the way towards the maximal velocity
 - d) The maximal velocity divided in half
10. Store room inside a cell is
 - a) Vacuole
 - b) Nucleus
 - c) Chloroplast
 - d) Endoplasmic

II Write short notes on any FIVE

(5 x 2=10)

1. Globular Proteins
2. Coenzymes
3. Optical isomerism
4. Mutarotation
5. Name the water soluble vitamins and their deficiency
6. Rf value
7. Write Michaelis Menton equation and plot the lineweaver burk plot

III Write short essays on any FIVE of the following

(5 x 4=20)

1. Types of reversible inhibition with examples
2. Alcoholic fermentation
3. Photosynthesis and its regulation
4. Calvin cycle
5. Immobilisation of enzymes with industrial application

6. Various steps involved in protein biosynthesis

7. IUB classification of enzymes

IV Write essay on ANY ONE

(1 x10=10)

1. Describe the cyclic and non cyclic phosphorylation reaction in photosynthesis

2. Explain how glycogenolysis is regulated through phosphorylase enzyme
