

# KERALA AGRICULTURAL UNIVERSITY

## B.Sc. Hons (Ag) 2011 Admission

II<sup>nd</sup> Semester Final Examination, August 2012

Cat. No: Ssac.1202

Marks: 80

Title: Agricultural Biochemistry (2+1)

Time: 3 hours

### I A-State True or false

10 x 1= 10

- 1) Lactose is present in milk
- 2) Amylose and amylopectin are found in pectin
- 3) Glucose is an example for ketopentose
- 4) Oleic acid is a monounsaturated fatty acid
- 5) Stearic acid is an essential fatty acid

### I B- Fill up the blanks

- 6) Maltose contains -----
- 7) Vinegar is nothing but -----
- 8) Fatty acid found in butter is -----
- 9) Sugarcane is the natural source for -----
- 10) Fructose is otherwise known as-----

### II Write short notes on Any Ten of the following

10 x 3= 30

- 1) Commercial uses of carbohydrates
- 2) Plant pigments
- 3) Electron transport chain
- 4) Rancidity
- 5) Classification of enzymes
- 6) Secondary metabolites and their function
- 7) Colour reactions of amino acids
- 8) Biological functions of lipids
- 9) Industrial uses of phenols
- 10) Physical constants of fats and oils
- 11) Constituents of plant cell
- 12) Plastics and Nylon

### III Write short essays on Any Six of the following

6 x 5= 30

- 1) Biosynthesis of fatty acids
- 2) Glycolytic pathway with energetics
- 3) Classification and functions of proteins
- 4) Properties and uses of alkaloids
- 5) Photosynthesis and its regulation
- 6) Alcoholic fermentation
- 7) Mechanism of enzyme action
- 8) Fixation of CO<sub>2</sub>

### IV Write essay on Any One of the following

1 x 10= 10

- 1) Enzyme immobilization and its industrial applications
- 2) Formation of glucose, sucrose and starch with reference to C<sub>3</sub>, C<sub>4</sub> and CAM plants