



KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Agriculture 2012 & Previous Admissions (Old Scheme)
II Semester Re-Examination- July-2017

Ssac. 1202

Agricultural Biochemistry (2+1)

Marks: 80
Time: 3 hours

I Fill in the blanks:

(10 x 1=10)

- 1 ----- is a sulphur containing amino acid.
- 2 TCA cycle takes place in -----
- 3 ----- is the enzyme responsible for replication of DNA.
- 4 Example of a pentose sugar is -----
- 5 ----- is a compound lipid.

State True or False:

- 6 Albumin is a simple protein.
- 7 Enzyme reaction does not influence activation energy.
- 8 Cell membrane has a phospholipid bilayer.
- 9 Amino acids are amphoteric in nature.
- 10 mRNA is called the adapter molecule in protein synthesis.

II Write short notes on any TEN:

(10 x 3=30)

- | | |
|--------------------------|--|
| 1 Hydrogenation of fats. | 7 Photosynthetic pigments. |
| 2 Structure of starch. | 8 Activation of amino acids. |
| 3 Photo respiration. | 9 Structure of mitochondria. |
| 4 Bio- diesel. | 10 MRNA. |
| 5 Nucleotide. | 11 Terpenoids. |
| 6 CAM plants. | 12 Industrial applications of enzymes. |

III Answer any SIX:

(6 x 5=30)

- 1 Reducing property of disaccharides viz sucrose and maltose.
- 2 β - oxidation of fatty acids.
- 3 Cyclic and non-cyclic photophosphorylation.
- 4 Reactions of TCA cycle.
- 5 Classification of carbohydrates.
- 6 Glyoxylate cycle.
- 7 Classification of amino acids.
- 8 Sequence of reactions of C_4 pathway.

IV Write essay on any ONE

(1 x 10=10)

- 1 Explain the mechanism of enzyme action and the various factors affecting its activity.
- 2 Explain electron transport chain and oxidative phosphorylation.
