



KERALA AGRICULTURAL UNIVERSITY
B.Sc. (Hons.) Forestry 2017 Admission
I Semester Final Examination-March-2018

Fbti.1102

Plant Biochemistry (1+1)

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the blanks

- 1 The isomers which differ in configuration around carbonyl carbon are -----
- 2 The linkage responsible for organization of Primary structure of a protein is -----
- 3 ----- is an essential constituent of cell membranes.
- 4 Fatty acids are transported across the inner mitochondrial membrane with the help of -----
- 5 In C₄ plants, the primary CO₂ acceptor is -----

Match the following

- | | |
|--------------------|------------------------------|
| 6 Amylose | a PUFA |
| 7 Arachidonic acid | b 6 – Amino Purine |
| 8 Aspartic acid | c Electron transport Carrier |
| 9 Adenine | d Acidic aminoacid |
| 10 Cytochrome | e α 1,4 |

II Write Short notes on ANY FIVE of the following

(5x2=10)

- 1 Define : Mutarotation of sugars
- 2 What are Zwitter ions?
- 3 Define: Iodine value of fat and its significance
- 4 What is an active site of enzyme?
- 5 Mention the significance of HMP pathway.
- 6 Differentiate Nucleoside and Nucleotide
- 7 What do you mean by Photorespiration?

III Answer ANY FIVE of the following

(5x4=20)

- 1 Differentiate: Amylose and Amylopectin
- 2 Describe the Fat constants and their significance
- 3 Explain the secondary structures of Proteins
- 4 Mention the classification of RNA and their significance in Protein synthesis
- 5 Explain the Electron transport chain complexes
- 6 Outline the steps in Glyoxylate cycle and its importance
- 7 Explain the bioenergetics of Glucose oxidation

IV Write essay on ANY ONE of the following

(1x10=10)

- 1 Enumerate the steps in β – oxidation of fatty acid and its biosynthesis
- 2 Enumerate the reactions of TCA cycle
