

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc (Hons.) Forestry 2016 Admission**  
**I<sup>st</sup> Seméster Final Examination- March-2017**

Cat. No: Fbti.1102.

Title: Plant Biochemistry (1+1)

Marks: 50.00

Time: 2 hours

**I. Fill up the blanks suitably**

(10x1=10)

1. \_\_\_\_\_ is a storage polysaccharide.
2. Esters of fatty acid with glycerol are called \_\_\_\_\_
3. Amino acids are linked by \_\_\_\_\_ bonds in proteins.
4. The enzyme \_\_\_\_\_ converts glucose to glucose 6 phosphate
5. The first three carbon compound formed in C3 pathway is \_\_\_\_\_

**State whether the following statements are True or False**

6. Phospholipids are important membrane lipids.
7. Glucose and fructose are called invert sugars.
8. Phosphodiester bonds are found in nucleic acids.
9. mRNA transports amino acids to the site of protein synthesis.
10. Gibberellic acid regulates stomatal opening.

**II. Write short notes/answers on any FIVE**

(5x2=10)

1. Write a note on mutarotation.
2. Define Iodine number. What is its significance?
3. Write a note on primary structure of proteins.
4. Write a note on allosteric enzymes.
5. What is the significance of glyoxylic acid cycle?
6. Write a note on photorespiration.
7. Explain the mode of action of auxins.

**III. Answer any FIVE questions**

(5x4=20)

1. Classify enzymes. Give examples.
2. Write a note on electron transport chain.
3. Describe polysaccharides.
4. Write a note on the types of RNA and their function.
5. Describe the tertiary structure of proteins.
6. Give the sequence of reactions of glycolysis.
7. Explain the structure and significance of membrane lipids.

**IV. Write Essay on any ONE**

(1x10=10)

1. Distinguish C3 and C4 plants. Explain the fixation of CO<sub>2</sub> and regulation of photosynthesis.
2. Write an essay on classification of lipids. Explain the fat constants.

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