



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

Ssac.1101

Fundamentals of Plant Biochemistry (1+1)

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

I Fill in the blanks

- 1 Lipids are readily soluble in-----
- 2 The protein component of the holoenzyme is called as -----
- 3 α and β -D-Glucose are a pair of-----
- 4 Chitin is a homopolymer of ----- units.
- 5 Unfolding of native protein is called as -----

Match the following

- | | | |
|-----------------|---|---------------------------|
| 6 Simple lipid | a | Adenylic acid |
| 7 Palmitic acid | b | Unsaturated fatty acid |
| 8 Cellulose | c | Enzyme |
| 9 Nucleoside | d | Structural polysaccharide |
| 10 Peptidase | e | Oils |

II Write Short notes on ANY FIVE of the following

(5x2=10)

- 1 Explain about mutarotation.
- 2 Explain about Hydrogenation of fat.
- 3 Name covalent and non covalent bonds which stabilize protein structure.
- 4 Differentiate between starch and cellulose.
- 5 What are the biological functions of proteins?
- 6 Describe about Ninhydrin reaction of amino acid.
- 7 What is inversion?

III Answer ANY FIVE of the following

(5x4=20)

- 1 Explain the clover leaf model of t-RNA
- 2 Write the steps of TCA cycle and give the energetics
- 3 Give a detailed note on structural organization of proteins
- 4 Explain denaturation of proteins
- 5 Explain the salient features of DNA
- 6 Mention the factors which affect the enzyme catalyzed reaction. Explain any one
- 7 Write the classification of polysaccharides.

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 Explain glycolysis with energetics
- 2 Explain the reactions of β oxidation
