GIET UNIVERSITY, GUNUPUR – 765022

RS19BSCAG671

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3rd SEMESTER REGULAR EXAMINATIONS, SEPT/OCT 2019-20

SC-232

FUNDAMENTALS OF PLANT BIOCHEMISTRY

Time : 2 Hours Maximum : 50 Marks

SECTION – A

1.Fill in the blanks with suitable words **10×0.5=5**

i. In protein amino acids are joined by.....

ii. The fermentation product of sugar is.....

iii. Soap is a salt of.....

iv. The general formula of monosaccharide is.....

v. ..... amino acid lack an asymmetric C atom

vi. Oligosaccharide hydrolyse to yield.....number of monosaccharide

vii. The taste of most of the alkaloids is.....

viii. Lipid containing a protein sub unit is known as.....

ix. Albumin of egg and casein of milk are..... protein

x. Examples of two amino acids containing sulphur are ..... and .....

2. Write True or False **10×0. 5=5**

i. Maltose is a reducing sugar

ii. The sequence of amino acid in protein is called its tertiary structure

iii. Arginine is a non polar amino acid

iv. Pectin in fruit juice is lipid

v. Albumin of egg is a storage protein

vi. Glycine lack an asymmetric C atom

vii. Apoenzyme is a non-protein component

viii. Maltose is a disaccharide of glucose and galactose

ix. Glycosidic bond in sucrose is beta 1-4

x. Methionine is an essential amino acid

3. Write short notes **5 ×1=5**

i)Isomerism ii.Properties of amino acid iii.Specificity of enzyme iv. Mode of enzyme action v. Analytical properties of lipid

4. **Define the followings** **5 ×1=5**

i.Zwitter ion ii.Peptide bond iii. Enzyme iv. Mutarotation, v.Isomerism

SECTION – B

(Attempt any **five** questions. Each question carries equal marks) **(5 x 6= 30)**

5. What is the building block of protein? What is peptide bond and discuss how it is formed. Write in detail about conformation of protein
6. Briefly discuss about of mode of enzyme action. Write in detail about the factors affecting enzyme activity.
7. What is nucleic acid? Write in brief about the types and function of nucleic acid. Discuss in detail about the structure of DNA and RNA.
8. Discuss in detail about TCA cycle and beta oxidation.
9. What is an enzyme? Write in short about classification of enzyme. Briefly discuss about role of inhibitors on enzymatic activity**.**
10. Write in short about properties of water molecule**.** Discuss in detail about classification of carbohydrate

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