

10199150004

B.Sc. (Forestry) 1st semester, Examination - (2019-20)

S-1123

Plant Biochemistry and Biotechnology

Time: Three Hours

MM: 35

Section - A

Note: Attempt all questions. Each question carries 1 mark.

Fill in the blanks.

1. is a reducing Sugar.
2. is an aromatic Amino Acid.
3. Organic non-protein part of an Enzyme is called
4. culture is a closed system that carries out Fermentation with a fixed amount of Nutrients.
5. Saponification value represents the no. of mgs. of ^{KOH}..... required to saponify 1gm of fat.

Write True (T) or False (F).

6. All naturally occurring proteins consists of L- forms of amino acids. ✓ T/F
7. Alkaloids are one of the major classes of secondary metabolites. T/F
8. Haberlandt is considered the father of plant tissue culture. T/F
9. Glycolysis takes place at inner mitochondrial membrane. T/F
10. Cosmids are used as cloning vector in genetic engineering. T/F

Section - B

Note: Attempt any five questions. Each question carries 2 marks

11. Explain the structure and function of Chlorophyll.
12. Discuss the classification of enzymes?
13. Describe about Meristem Culture.
14. Draw the structure of Fructose and Cellulose.
15. Describe about Bioinformatics.
16. Explain Rancidity of oils and Iodine value.
17. Describe about Germplasm Conservation.

Section - C

Note: Attempt any three questions. Each question carries 5 marks

18. Discuss in detail about Somaclonal Variations and its advantages.
19. Describe in detail about Nitrogen Fixation in Plants.
20. Discuss the Principle of Genetic Engineering. ✓
21. Describe in detail about the structure and properties of Proteins.
22. Discuss the application of Plant Tissue Culture in Plant improvement.