

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2023**  
**(Regular/Improvement/Supplementary)**

**BOTANY**  
**GBOT6B12T: PLANT BIOCHEMISTRY**

**Time: 2 Hours**

**Maximum Marks: 60**

**SECTION A: Answer the following questions. Each carries *two* marks.**  
**(Ceiling 20 Marks)**

1. What are micromolecules?
2. Write any two examples for precursor molecules.
3. What are monosaccharides?
4. Write any two properties of glycerol.
5. Comment on  $\beta$  pleated sheet structure of protein.
6. Write examples for nitrogen containing secondary products.
7. What do you mean by metabolic reactions?
8. Define Glycolysis.
9. What are saturated fatty acids? Give one example.
10. What are triglycerides?
11. Mention the major enzymes involved in hydrolysis of proteins.
12. What do you mean by oxidative phosphorylation?

**SECTION B: Answer the following questions. Each carries *five* marks.**  
**(Ceiling 30 Marks)**

13. Briefly discuss on steroids with special reference on cholesterol.
14. How aminoacids are classified based on variable side chains?
15. Give an account on bonds responsible for stability of protein structure with special empahzise on protein denaturation
16. Write the functions of nucleotides and also discuss nucleotide derivatives.
17. Explain Citric acid cycle with appropriate elucidation of major reactions in it.
18. Give an account on hydrolysis of lipids with suitable elucidation.
19. Breifly explain electron carriers in ETC in mitochondria.

**SECTION C: Answer any 1 question. Each carries *ten* marks.**

20. Write on simple sugars, compound carbohydrates and carbohydrate derivatives with suitable examples.
21. Give an outline of classification, nomenclature of enzymes with special reference on various factors affecting enzyme activity.

**(1 x 10 = 10 Marks)**