

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: I (New)	Term	: First	Academic Year	: 2022-23
Course No.	: H/BIOCHEM 111	Title	: Elementary Plant Biochemistry		
Credits	: 2 (1+1)				
Day & Date	: Saturday, 01.04.2023	Time	: 10:00 to 12:00 hrs.	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 Define biochemistry. State the importance of biochemistry in relation to agriculture.
- Q.2 What are carbohydrates? Classify carbohydrates with examples.
- Q.3 Define nucleotide. Give the hydrolytic products of DNA and RNA.
- Q.4 What are the lipids chemically? Enlist classification of lipids and explain about lipid metabolism.
- Q.5 Define proteins. Classify proteins on the basis of composition.
- Q.6 Name the coenzyme derivatives of water soluble vitamins and state the functions of vitamins.
- Q.7 Classify enzymes with suitable examples and explain chemical nature of enzyme.
- Q.8 Define plant pigments and classify them.
- Q.9 Define sterol. Classify them and write the physiological role of sterol.
- Q.10 Write short notes on (Any Two):
- a) Photosynthesis b) Glycolysis c) Essential oils

SECTION 'B'

- Q.11 Define the following terms:
- 1) Biomolecules 2) Amino acids
- 3) Nucleic acid 4) Zwitter ion
- Q.12 Answer the following:
- 1) Who is called as the 'Father of Biochemistry?'
 - 2) Mention fat soluble vitamins (Any Two).
 - 3) State two properties of monosaccharides.
 - 4) Write an example of milk sugar.

