

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, HANE
SEMESTER END EXAMINATION**

B.Sc. (Hons.) Horticulture

Semester : 1 (New)	Term : I	Academic Year : 2018-19
Course No. : 11/BIOCHEM 111	Title : Elementary Plant Biochemistry	
Credits : 2(1+1)	Time : 09.00 to 11.00	Total Marks : 40
Day & Date : Friday, 14.12.2018		

- 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 diagrams wherever necessary.

SECTION "A"

- Q.1 Define lipids. State the chemical properties of lipids and explain any one.
- Q.2 What are sterols? State properties of cholesterol.
- Q.3 Define amino acid. Classify amino acids based on composition with examples.
- Q.4 What is an enzyme? State functions of enzymes.
- Q.5 Define plant pigments. Classify plant pigments based on solubility with examples.
- Q.6 Define carbohydrates. Classify carbohydrates based on composition with examples.
Give functions of carbohydrates.
- Q.7 Define vitamins. Enlist water soluble vitamins with their co-enzyme derivatives.
- Q.8 Differentiate between DNA and RNA.
- Q.9 Explain the meanings of Anabolism, Catabolism, Glycogenesis and Glycogenolysis.
- Q.10 State steps of reaction involved in Beta oxidation of fatty acids.

SECTION "B"

- Q.11 Fill in the blanks.
- 1) Polypeptide linkages are present in _____ biomolecules.
 - 2) _____ are catalytic in nature.
 - 3) Linoleic is _____ fatty acid.
 - 4) Full form of NADP = _____.
- Q.12 State True or False.
- 1) Glucose and fructose shows 16 and 8 possible isomers, respectively.
 - 2) Fats are ester of saturated fatty acid and glycerol.
 - 3) Holoenzyme = Apoenzyme + Cofactor.
 - 4) DNA contains ribose sugar.

