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SEMESTER END THEORY EXAMINATION
B.Sc. (Hons) Horticulture

Semester	: I (New)	Term : I	Academic year	: 2020-21
Course No	: H/BIOCHEM-111	Title : Elementary Plant Biochemistry		
Credits	: 2 (1+1)			
Day and Date	: 20/07/2021, Tuesday	Time : 12.00-1.00	Total Marks : 40	

- Note:**
1. Solve any **four** questions from Section “A”
 2. Solve any **six** questions from Section “B”
 3. All questions from Section “C” are compulsory
 4. Send the PDF file of answer sheet to the email id of respective course teacher.

SECTION “A”

(Write the answers in 4-5 sentences only. Each question carries 4 marks.)

- Q. 1 What are carbohydrates? Give the functions of carbohydrates.
- Q. 2 Define vitamins. Enlist the water soluble vitamins with their co-enzyme derivatives.
- Q. 3 Differentiate between reducing and non-reducing sugar.
- Q. 4 What is protein? Give the classification of proteins.
- Q. 5 State the steps of reaction involved in Beta oxidation of fatty acids.

SECTION “B”

(Write the answers in one sentence only. Each question carries 2 marks.)

- Q. 6 (Answer in one sentence/Do as directed /Define etc.)
 - a) How many isomers are possible in glucose and fructose?
 - b) State the functions of enzymes.
 - c) Define fatty acid.
 - d) Differentiate endergonic and exergonic reactions
 - e) Define glycolysis.
 - f) What is phosphorylation?
 - g) Define nucleic acids.

SECTION “C”

- Q. 7 (Choose the correct option. Each question carries 1 mark.)

- 1 ----- is called hydrate of carbon.

a) Carbohydrate	b) Protein
c) Lipid	d) vitamin
- 2 The components of nucleic acid are-----

a) Pentose sugar	b) Phosphoric acid
c) Nitrogenous base	d) all of these
- 3 ----- are the building blocks of body.

a) Carbohydrates	b) Proteins
c) Lipids	d) vitamins
- 4 The two different compounds with same molecular formula are called -----

a) isomers	b) epimers
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- c) anomers
d) enantiomers
- 5 . ----- is an example of non-reducing disaccharides.
a) Fructose
b) Sucrose
c) Mannose
d) Ribulose
- 6 Vitamin A, D, E and K are called ----- vitamins.
a) ether soluble
b) ester soluble
c) water soluble
d) fat soluble
- 7 Cow milk contains ----- percent of lactose.
a) 3.5
b) 6.5
c) 5.5
d) 4.5
- 8 ----- are cheap source of energy.
a) Carbohydrates
b) Proteins
c) Lipids
d) vitamins
- 9 Fat is ----- and oils are ----- state at room temperature
a) solid, liquid
b) liquid, solid
c) solid, gaseous
d) liquid, gaseous.
- 10 ----- refers to heterogeneous group of fatty acid which is relatively insoluble in water and considerably soluble in organic solvent.
a) Carbohydrates
b) Proteins
c) Lipids
d) vitamins
- 11 A carbon atom attached to the four different groups is called -----
a) dissimilar carbon atom
b) uncommon carbon atom
c) asymmetric carbon atom
d) uneven carbon atom
- 12 Krebs's cycle is also called -----
a) DSA cycle
b) MTB cycle
c) TCA cycle
d) ATB cycle