

Roll No.

Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (Agriculture) (2014 to 2018) (Sem.-1)

BIOCHEMISTRY

Subject Code : BSAG-103

M.Code : 72210

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Write briefly :

1. Mutarotation
2. Essential fatty acids with an example
3. Isozymes and CoEnzymes
4. Nucleotides with an example
5. Gibbs free energy
6. Glycosidic bond
7. Reducing sugar with an example
8. Phospholipids
9. Amphoteric molecules
10. Biodiesel

SECTION-B

11. Define Proteins. Write a short note on fibrous and globular proteins.
12. What is the difference between Vitamins and Hormones? Write a short note on fat soluble vitamins.
13. Describe the oxidative phase of Pentose phosphate pathway. What is the importance of this pathway?
14. Define enzyme activity and its units. What are the various factors that affect the activity of enzyme?
15. a) Describe transamination reactions of amino acids.
b) Draw the structures of : Sucrose, Arginine and Methionine.

SECTION-C

16. Describe the process of glycolysis. Who discovered this pathway and how many ATPs are produced at the end of this pathway?
17. Define and Classify Lipids. Write a short note on the biosynthesis of triacylglycerols.
18. Define secondary metabolites and discuss their industrial applications.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.