

FACULTY OF SCIENCE**B.Sc. (CBCS) I - Semester Examination, November/December 2019****Subject: Biochemistry (Chemistry of Biomolecules)****Paper : I****Time: 3 Hours****Max. Marks: 80****Part – A (8x4 = 32 Marks)****(Short Answer Type)****Note: Answer any EIGHT of the following.**

1. Weak acid.
2. pH.
3. Henderson Hasselbalch equation.
4. Naturally accruing peptides.
5. Essential and non essential amino acids.
6. Denaturation of proteins.
7. Mutarotation.
8. Oligosaccharides.
9. Glycosides.
10. Waxes.
11. Essential fatty acids.
12. Glycolipids.

Part – B (4x12 = 48 Marks)**(Essay Answer Type)****Note: Answer all the following questions.**

13. (a) Explain the scope of Biochemistry and add a note on Biological Buffers.

OR

(b) Explain the stereochemistry of amino acids in detail.

14. (a) Describe the titration curve of glycine & pk values and add a note on non protein amino acids.

OR

(b) Explain the structural organization of proteins.

15. (a) Explain the reactions of Monosaccharides.

OR

(b) Write about glycosaminoglycans in detail.

16. (a) Explain the structure and functions of phospholipids and sphingolipids.

OR

(b) Explain the behavior of amphipathic lipids in water – formation of micelles, bilayers, vesicles & liposomes.
