

SUBJECT CODE: 19BI/PC/BM14

M.Sc. DEGREE EXAMINATION NOVEMBER 2022
BIOINFORMATICS
FIRST SEMESTER

COURSE : CORE
PAPER : BIOMOLECULES AND BIOCHEMISTRY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION A

(20x1=20)

ANSWER ALL QUESTIONS.

1. Steroids
2. HMP shunt
3. Nucleotides
4. Coordinate bonds
5. Domains and Motifs
6. Gluconeogenesis
7. Xenobiotics
8. Ketone bodies
9. Conjugate proteins
10. Beta pleated sheets
11. Chymotrypsin
12. Edman's reaction
13. V max
14. Cofactors and coenzymes
15. Reactions of LDH
16. Absorption coefficient
17. Disulphide bridges
18. Functions of NMR
19. Isoenzymes
20. Expand MALDI TOF

SECTION B

ANSWER FOUR QUESTIONS

(4x10=40)

21. Describe the structure of a heteropolysaccharide. Mention its functions.
22. Explain the major steps in the protein synthesis.
23. Enumerate with details on the factors affecting enzyme action.
24. Chart out the biochemical reactions of beta oxidation.
25. Discuss the principles and applications of NMR.
26. High light the principles and working mechanism of UV vis spectrophotometer.
27. Elaborate on statement and applications of thermodynamics.

SECTION C

ANSWER ANY TWO QUESTIONS

(2x20=40)

28. Elucidate the HMP pathway. Highlight the significances of HMP pathway.
29. Elaborate on levels of protein structures.
30. Derive the equation on Michele's Menton constant.
31. Describe the principles, working mechanism of mass spectrophotometer.
