

MSc DEGREE EXAMINATION JUNE 2018
(Third Semester)

Branch – **BIOCHEMISTRY**

BIOINFORMATICS

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

- 1 a Explain objectives and scope of bioinformatics.
OR
b Write a note on HTML and XML.
- 2 a Write a note on biological database.
OR
b Explain entrez and SRS.
- 3 a Write a note on sequence alignment and analysis.
OR
b Explain dot plot with suitable diagram.
- 4 a Discuss pharmacogenomics with suitable examples.
OR
b Explain PCR primer and probe design.
- 5 a Write a note on a protein visualization tool.
OR
b Discuss secondary structure prediction methods.

SECTION -B (45 Marks)

Answer any **THREE** questions

ALL questions carry **EQUAL** Marks (3 x 15 = 45)

- 6 a Elaborate on internet and world wide web. (7½)
b Describe the salient features of EMBOSS. (7½)
- 7 a Discuss HGP and its applications. (10)
b Describe any one specialized organism data base. (5)
- 8 a Elaborate on BLAST. (7½)
b Discuss multiple sequence analysis and CLUSTAL W. (7½)
- 9 a Describe Gene and ORF prediction. (7½)
b Elaborate on structure based drug design. (7½)
- 10 a Describe the method and applications of X-ray in protein structure prediction. (10)
b Discuss the salient features and the applications of Ramachandran plot.