2019

(January)

Time : **2** hours

Full Marks : **40**

*Answer any **five** questions*

All questions carry equal marks.

(BIOINFORMATICS AND BIOSTATISTICS)

1. Explain theoretical prediction of 2D & 3D structure of protein.
2. Write notes on :
    - (a) BLAST
    - (b) Force fields
3. Give an account of structural database with suitable example. How it is useful in bioinformatics.
4. Write notes on :
    - (a) PAM *vs.* BLOSUM
    - (b) SRS
5. Describe in detail the different types of sequence alignment algorithm used in sequence alignment studies.
6. Write notes on :
    - (a) Homology modeling
    - (b) Hidden markoves model
7. Write notes on :
    - (a) Application of Statistics in biological research
    - (b) Binomial distribution.
8. Calculate mean, median, mode from the following table regarding the number of seeds obtained from 6 points :

Number of seeds	25	30	15	40	50	30