

Third Semester M. Sc. II Examination

BOTANY

Paper - XII Elective

Bioinformatics - II

P. Pages : 3

Time : Three Hours]

[Max. Marks : 80

Note : All questions carry equal marks and are compulsory.

1. Write on :—

- | | |
|----------------|---|
| (a) Clustal-W. | 5 |
| (b) Motifs. | 5 |
| (c) UPGMA. | 6 |

OR

- | | |
|------------------------------------|---|
| (d) BLAST-2. | 5 |
| (e) Rooted and unrooted Tree. | 5 |
| (f) Comparative genomics overview. | 6 |

2. Explain in brief individually the various components of Genome.

OR

What is DNA micro array ? Explain the concept, mechanism and applications. 16

3. Write on :—

- (g) Ab-initio method. 5
- (h) Peptools. 5
- (i) α - Helix. 6

OR

- (j) β - sheets and coils. 5
- (k) Strategies for protein docking. 5
- (l) Optimization method (one). 6

4. Describe the concept, structure and application of virtual lab.

OR

Discuss any two tools used to analyse protein characteristics. 16

5. Write on :—

- (m) Bioinformatics in Agriculture. 5
- (n) Model organism. 5
- (o) Forest informatics. 6

OR

- (p) Metabolomics. 5
- (q) Target identification. 5
- (r) Genechip. 6

