

2013

M.Sc.

3rd Semester Examination

BIOTECHNOLOGY

PAPER—BIT-306

(PRACTICAL)

Full Marks : 40

Time : 4 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all questions.

1. Find out homologous matches (six) for the supplied protein sequence using bioinformatic programme. Record statistical parameter with its respective value mentioned in the result. Do multiple sequence alignment with those previously selected homology. 15

[Principle — 3 + Procedure — 6 + Result — 6]

Or

(Turn Over)

Retrieve the cDNA sequence of the Acc. No. provided and calculate mono, di, and tri nucleotide frequencies of the sequence. 15

[Principle — 3 + Procedure — 6 + Result — 6]

2. Show the tertiary structure of the provided PDB id. Show any five amino acids present in this structure and mention their ligands. 15

[Principle — 3 + Procedure — 6 + Result — 6]

Or

Find out patterns / motif present in the supplied sequence. Explain your result.

[Principle — 3 + Procedure — 6 + Result — 6]

3. Practical Note Book. 5
4. Viva-Voce. 5
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