

Parvatibai Chowgule College of Arts and Science

Autonomous

B.Sc. Semester End Examination, January 2022 / Feb 2022

Semester: V

Subject: Biotechnology

Course Title: Bioinformatics (Elective)

Duration: 2 Hours

Max. Marks: 45

**Instructions:** 1. All the questions are compulsory, internal choice is available.

2. Figures to the right indicates maximum marks to the question.

**Q1. Answer ANY THREE of the following:**

(9)

- Write a short note on the role of computers in biological research.
- Comment on the concept of ORF with the help of a neatly labelled diagram.
- Explain the role of bioinformatics in personalized.
- Write a brief note on EBI in the contributions of research.

**Q2. Answer ANY TWO of the following:**

(12)

- Explain how Swiss-Prot database is different from DDBJ.
- Describe the role of tools used for visualization of proteins.
- Comment on the differences between Prosite and OMIM.

**Q3. Answer ANY TWO of the following:**

(12)

- Write the distinguishing features between BLAST and FASTA.
- List the applications of sequence alignment tools in research.
- Describe the characteristic features of the various types of phylogenetic trees that you have studied.

P.T.O