**ST.JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM**

V SEMESTER **BIOCHEMISTRY** TIME:2HRS/WEEK

BCH-E3-5854 (2) **BIOINFORMATICS LAB** MAX.MARKS:50

w.e.f. 2020-2021 (20AH) **SYLLABUS**

**List of Experiments**

1. Searching data from Biological data bases

2. Demonstration on Nucleic acid and protein databases

3. Simple and multiple Sequence alignment

4. Searching structural data from PDB

5. Database search using BLAST

6. SDS-PAGE

7. IEF (2-D gel analysis)

8. Demonstration of MALDI -TOF

**Suggested books**

1. Genome Mapping: A practical approach. Dear P (Editor). 1st Ed. 2000. Oxford University.

2. Developing Bioinformatics Skills. Alfonso Valencia and Blaschke. L (2005) Oreilles

3. Bioinformatics sequence, structure and data banks ed. By Des Higgins Willie Taylor (2006).

4. Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins" (Andreas D. Baxevanis, B. F. Ouellette), Paperback, 2nd ed., 470 pp., ISBN: 0471383910, Publisher: Wiley, John & Sons, Inc.Pub.

5. David W. Mount, Bioinformatics: Sequence and Genome Analysis, 2nd edition, Cold Spring Harbor Laboratory, 2004.

6. Introduction to Bioinformatics by T.K. Altwood and D.J Parry-Smith (Pearson Education Asia1999).