

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018  
(Third Semester)

Branch - **BIOCHEMISTRY**

**BIOINFORMATICS**

Time: Three Hours

Maximum: 75 Marks

**SECTION -A (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks ( 5 x 6 = 30)

- 1 a Write a short note on FTP.  
OR \*  
b Give a brief account on XML.
- 2 a Describe the specialized organism databases.  
OR  
b What is SRS system? How is it useful for biological databases?
- 3 a Comment on Global alignment.  
OR  
b Explain Transmembrane Region analysis.
- 4 a What is E-cell? Explain its significance.  
OR  
b Discuss about ORF prediction.
- 5 a Briefly explain Homology modeling.  
OR  
b Discuss the applications of NMR in structure analysis.

**SECTION -B (45 Marks)**

Answer any **THREE** questions

**ALL** questions carry **EQUAL** Marks (3 x 15 = 45)

- 6 Describe in detail about Perl and its applications in bioinformatics.
- 7 Give a detailed account of sequence and structure databases.
- 8 Discuss about the various methods of phylogenetic analysis.
- 9 Explain the functional genomics in detail.
- 10 Discuss about protein structure databases and visualization tools.