

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(Second Semester)

Branch -BIOTECHNOLOGY

BIOINFORMATICS

Time: Three Hours

Maximum: 75 Marks

Answer ALL questions  
ALL questions carry EQUAL marks (2 + 5+8)

- 1 a What is RDBMS?  
b Explain the steps involved in sequence retrieval.  
c Write an detailed account on patterns and profiles.  
OR  
d What is GSS.  
e Write a short note on Mark up languages.  
f Explain sequence submission and Genbank file format.
- 2 a What is E-value?  
b Write about similarity searching matrices,  
c Explain in detail about multiple sequence alignment.  
OR  
d What is T-BLAST?  
e Write the difference between BLAST and Fast A.  
f Write a detailed account on PAM and BLOSUM.
- 3 a Define probe.  
b Write short notes on OFR prediction.  
c Explain about the tools used for restriction mapping in detail.  
OR  
d What is UTRS algorithms?  
e Explain about high through put data analysis micro array,  
f Write a detailed note on Genome annotation & mapping databases.
- 4 a What is chime?  
b What are the networks used to study protein - protein interactions?  
c Explain in detail about protein secondary databases.  
OR  
d What is homology?  
e Write short notes on protein array.  
f Explain protein structure prediction using ab initio in detail.
- 5 a Define Docking.  
b Write the role of SNPs in disease detection,  
c Write an detailed account on structure based drug designing.  
OR  
d Define medical informatics,  
e Explain about Medline and OMIM.  
f Explain Saccharomyces Cerevisiae genome databases in detail.