LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **ZOOLOGY**

THIRD SEMESTER – **NOVEMBER 2018**

16/17PZO3ES01 – BIOINFORMATICS

Date: 31-10-2018   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

Part-A

Answer all the questions   **(10×2=20 Marks)**

1. Differentiate the primary from secondary databases.
2. What is the significance of AceDB database?
3. Define the following: (i) Metadata   (ii) Crawler
4. What is controlled vocabulary?
5. What is meant by FASTA?
6. Give two examples of pairwise sequence alignment tools.
7. Describe how microarrays are useful in differential gene expression studies.
8. Define coding statistics.
9. What is meant by molecular docking in drug discovery?
10. Give the applications of SNPper and WebMol.

Part-B

Answer any FOUR questions   **(4×10=40 Marks)**

11. Give an account on the significant features of the NCBI database.
12. Explain the working of search engines with suitable illustrations.
13. Write a note on BLAST.
14. Describe the different types of microarrays.
15. Discuss the role of pharmacogenomics in personalized medicine.
16. Write notes on:
    (i) Steps in building a multiple alignment   (ii) Boolean search

Part-C

Answer any TWO questions   **(2×20=40 Marks)**

17. Explain the following:
    (i) Types of biological data   (ii) Database management system
18. Describe the different methods used for phylogenetic tree construction.
19. Discuss the different types of gene prediction methods and software.
20. Give an account of the role of bioinformatics in drug design and discovery.

$$$$$$$$$