



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PHYSICS, PLANT BIO. & CHEMISTRY

FOURTH SEMESTER – APRIL 2016

AZ 4200 - BIOINFORMATICS

Date: 27-04-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

Answer all the questions in 50 words each

[10 × 2 = 20]

1. What are biosensors?
2. Distinguish Insilico biology and Synthetic biology
3. What are the components of satellite communication system?
4. State the role of Rasmol and Clustal W
5. What are the steps involved in C-programming?
6. Define molecular docking
7. Distinguish GENE BANK and GEN BANK
8. Mention any two networking topology
9. Name any four aminoacids
10. Expand (a)PDB (b) QSAR

PART – B

Answer any four questions in 600 words

[4 × 10 =40]

11. Describe a method of DNA sequencing
12. How do you use computer science in exploring bioinformatics?
13. Propose a flow chart for protein structure prediction
14. Examine the principle and application of DNA nanomachine
15. Depict an overview on structure of C-programming?
16. Highlight the scope of bioinformatics.

PART - C

Answer any two questions in 1200 words

[2 × 20 =40]

17. Elucidate nucleic acid and protein sequence databases and their respective tools for exploration
18. What are the events involved in post- transitional modification of proteins?
19. Discuss the concept of Pharmacogenomics in drug development
20. Highlight on: (a) Microarray technology
(b) UNIX operating system
(c) EMBOSS
(d) DNA Computing
