LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc.DEGREE EXAMINATION – **CHEMISTRY**

FOURTHSEMESTER – APRIL 2018

AZ 4200- BIOINFORMATICS

Date: 02-05-2018
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

Part-A

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

1. Define genetic Algorithm
2. What is DNA chip ?
3. Distinguish analog from digital computers.
4. Mention the application of Rasmol.
5. What is the role of BLAST
6. Comment on human genome.
7. Mention any four tools of genetic engineering
8. What is the importance of PUBMED and KEGG?
9. What do you know about pharmacogenomics ?
10. What are biosensors ?

Part-B

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

11. How do you sequence DNA ? Describe any one method
12. Write the principle and applications of microarray technology.
13. Propose a flow chart for protein structure prediction.
14. Explain the principle and applications behind DNA computing.
15. Propose a simple C-program for adding two numbers.
16. Illustrate the components of UNIX operating system and satellite communication net work.

Part-C

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

17. How does Bioinformatics aid in drug designing and drug development?
18. Elucidate the nucleotide and protein sequence data bases and their tools.
19. Propose a design for DNA nanomachine and add its applications.
20. How are proteins classified based on structure? Illustrate.

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