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AA—60—2019

FACULTY OF COMPUTER STUDIES
B.Sc. (Sixth Semester) EXAMINATION
OCTOBER/NOVEMBER, 2019
(Revised Pattern)

COMPUTER SCIENCE

(Bioinformatics)

(Tuesday, 19-11-2019)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—80

- N.B. :—*
- (i) All questions are compulsory.
 - (ii) Figures to the right indicate full marks.
 - (iii) Assume suitable data, if required.

1. Attempt the following : 20
 - (a) Explain genetic and physical maps of genome.
 - (b) Explain any *one* method of sequence alignment.
 - (c) Explain applications of bioinformatics.
 - (d) Write in short about data retrieval tools.
2.
 - (a) Explain the drug discovery technology. 8
 - (b) Explain any *three* databases used in bioinformatics. 7

Or

 - (c) What is genome analysis ? Explain in detail genome analysis. 8
 - (d) Explain in detail genetic maps. 7
3.
 - (a) Explain biological motivation of alignment problems. 8
 - (b) Distinguish between FASTA and BLAST algorithm. 7

P.T.O.

Or

- (c) Explain use of searching matrices for sequence alignments. 8
- (d) What is searching on web ? Explain any *one* tool for searching. 7
4. (a) Explain the role of computer in drug designing method. 8
- (b) Discuss the areas which are influencing drug discovery. 7
- Or
- (c) Explain G-protein coupled receptors as drug target. 8
- (d) Explain in detail data mining of biological databases. 7
5. Write short notes on (any *three*) : 15
- (i) Gene family
- (ii) Physical maps
- (iii) Protein data banks
- (iv) STS maps
- (v) Data mining.