

C.U.SHAH UNIVERSITY
Winter Examination-2015

Subject Name : __Bioinformatics/Biostatistics

Subject Code : _4LS04BOT1

Branch MICROBIOLOGY

Semester :4 Date :19/11/2015 Time :2:30To5:30 Marks :70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q-1** **Attempt the following questions:** **(14)**
(MCQ/Short Type of Questions=1 mark*14=14 marks)
- a) Define Bioinformatics
 - b) Define biostatistics
 - c) NCBI full form
 - d) BLAST full form
 - e) EMBL full form
 - f) PDB full form
 - g) Give formula of median
 - h) Give formula of z test
 - i) What is hypothesis
 - j) What is PHYLIP
 - k) What is rasmol
 - l) Give names of structural databases
 - m) What is pubmed
 - n) Define phylogenetic analysis

Attempt any four questions from Q-2 to Q-8

- Q-2** **Attempt all questions** **(14)**
- a) Explain HMM & AB initio method in detail **7**
 - b) Explain pattern discrimination in detail **7**
- Q-3** **Attempt all questions** **(14)**
- a) Explain neural network **7**
 - b) Write a short note on biological databasess **7**
- Q-4** **Attempt all questions** **(14)**
- a) Explain phylogenetic analysis & neighbor joining method **7**



b) How to predict the physical properties of protein 7

Q-5 Attempt all questions (14)

- a) Write a note on applications of biostatistics
- b) Explain molecular visualization by rasmol & other software

Q-6 Attempt all questions (14)

- a) Calculate the mean height of 200 wheat plants in cms is as follows 7

Class (x)	Frequency(f)
48	8
50	32
52	25
54	52
56	28
58	5

b) Obtain Measures of central tendency(Mean,median,Mode) 7

x	f
2-6	7
6-10	9
10-14	12
14-18	15
18-22	18
22-26	6
26-30	4

Q-7 Attempt all questions (14)

- a) Explain null & alternate hypothesis 7
- b) Explain mean & standard deviation 7

Q-8 Attempt all questions (14)

- a) Explain MSA 7
- b) Explain dot matrix analysis 7

