

Total No. of Questions : 5 Total No. of Printed Pages : 4

(2)

JK-460

JK-460**M.Sc. IIIrd Semester Examination, 2016****Biotechnology****Paper - II****Biostatistics & Bioinformatics****Time : 3 Hours]****[Maximum Marks : 85**

Note :- Attempt one questions from each. All question carry equal marks.

Unit - I

1. Explain different methods of collection, classification tabulation of numerical data.

OR

Write short notes on any four of the following :-

- (i) Measures of central tendency

P.T.O.

- (ii) Quartile deviation
- (iii) Coefficient of Variation
- (iv) Addition theorem of probability
- (v) Properties of probability density

Unit - II

2. Describe probability distribution and its application in detail.

OR

Write short notes on any four :-

- (i) Chi-square test
- (ii) Standard error
- (iii) Co-relation & Regression

Unit - III

3. Describe biological databases their role and scope.

OR

Write notes on any four :-

- (i) Hidden Markov model.
- (ii) Uniprot KB
- (iii) Chem spider

(3)

JK-460

(iv) Clustal W

(v) Application of Bioinformatics

Unit - IV

4. Describe multiple sequence alignment, its parts and importance.

ORWrite notes on any **four** :-

(i) Dot matrix methods

(ii) BLOSUM

(iii) FASTA

(iv) Phylogenetic analysis

(v) Primer Design tools

Unit - V

5. Describe folding of protein and molecular docking in detail. Also their methods.

ORWrite short notes on any **four** :-

(i) ChemSketch

P.T.O.

(4)

JK-460

(ii) Argus lab

(iii) Homology modelling

(iv) Drug designing

(v) Theories of protein folding.

+++

Copies 800