

**FACULTY OF SCIENCE****M.Sc. II-Semester (CBCS / NONCBCS) (New) Examination, May / June 2015****Subject : Biochemistry****Paper : IV****Biostatistics and Data Analysis****Time : 3 hours****Max. Marks : 80****Note : Answer all questions from Part-A and Part-B. Each question carries 4 marks in Part-A and 12 marks in Part-B.****PART – A (8 x 4 = 32 Marks)**  
(Short Answer Type)

- 1 Laws of probability
- 2 Standard distribution
- 3 F test
- 4 Quality control in Biochemistry
- 5 Use of integration to calculate AUC
- 6 Regression analysis for estimation of DNA
- 7 Uses or computers in Science and Research
- 8 Computer languages

**PART – B (4 x 12 = 48 Marks)**  
(Essay Answer Type)

- 9 a) What do you mean by graphical representation of data? Discuss different graphical methods of representation of data and enumerate their advantages.
- OR**
- b) Explain what are regression lines from the data given below obtain the regression equation of X on Y

X :	2	3	7	8	10
Y :	10	9	11	8	12

- 10 a) What is Mann-Whitney U test? When is it used and explain this with the help of an example.

**OR**

- b) In an experiment to compare two types of pig foods A and B, the following results of increase in weights were observed in pigs.

Pig numbers		1	2	3	4	5	6	7	8	Total
Increase in weight in lb	Food A	49	53	51	52	47	50	52	53	407
	Food B	52	55	52	53	50	54	54	53	423

Assuming that two samples of pigs are independent, can we conclude that food B is better than food A using student 't' test.