

MBA I Semester Regular Examinations February/March 2015

BUSINESS STATISTICS

(For students admitted in 2014 only)

Time: 3 hours

Max. Marks: 60

All questions carry equal marks

Use of T, F, χ^2 and Z value tables at 5% level of significance are permitted.

SECTION – A

Answer the following: (05 X 10 = 50 Marks)

- 1 What are the measures of central tendency? Explain the need and advantages of central tendency.

(OR)

- 2 Calculate standard deviation from the following data:

Class interval	0-5	5-10	10-15	15-20	20-25	25-30	30-35	40-45
Frequency	9	16	12	26	14	12	6	5

- 3 Define regression analysis. Brief out the significance and types of regression analysis.

(OR)

- 4 Calculate rank correlation coefficient between X and Y series.

X	68	64	75	50	64	80	75	40	55	64
Y	62	58	68	45	81	60	68	48	50	70

- 5 Fit a Poisson distribution for the following data by using recurrence relation model.

No. of deaths	0	1	2	3	4	5	6	7
Frequency	305	365	210	80	28	9	2	1

(OR)

- 6 Explain different theories of probability.

- 7 What is meant by hypothesis? Explain various tests for testing hypothesis.

(OR)

- 8 The time taken by workers in performing a job by Method-I and Method-II are given below.

Method – I	20	16	26	27	23	22	25
Method – II	27	33	42	35	32	34	38

- 9 What is Chi-square test? Explain the features and applications of chi-square test.

(OR)

- 10 The following table shows the distribution of digits in numbers chosen at random from a telephone directory.

Digits	0	1	2	3	4	5	6	7	8	9
Frequency	1026	1107	997	966	1075	933	1107	972	964	853

Using Chi-square test whether the digits may be taken to occur equally frequently in the directory at 5% level.

SECTION – B

(Compulsory Question)

01 X 10 = 10 Marks

- 11 Case study:

A stenographer claims that she can take the dictation at the rate of 120 words per minute. Can we reject her claim on the basis of 100 trials in which she demonstrates a mean of 116 words with a standard deviation of 15 words? Use Z-test at 5% level of significance.
