

USN 1AY10MBA28

10MBA13

First Semester MBA Degree Examination, June/July 2015
Statistics for Management

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer any FIVE full questions.
2. Use of statistical tables is permitted.

- 1 a. Write sources of primary data. (03 Marks)
b. Draw a less than and a more than ogive curve for the following data. (10 Marks)

Table with 6 columns: CI, 0-20, 20-40, 40-60, 60-80, 80-100 and 2 rows: f, 41, 51, 64, 38, 7

41 201
20 2

- c. State uses and limitations of statistics. (07 Marks)
2 a. What is an average? (03 Marks)
b. Calculate mean for the following data

Table with 8 columns: CI, 0-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70 and 2 rows: f, 6, 5, 8, 15, 7, 6, 3

23.4

- c. Find the geometric mean for the data

Table with 6 columns: CI, 0-10, 10-20, 20-30, 30-40, 40-50 and 2 rows: f, 5, 7, 15, 25, 8

26.97

- (10 Marks)
3 a. What is dispersion? (03 Marks)
b. Calculate standard deviation for the data

Table with 8 columns: CI, 90-99, 80-89, 70-79, 60-69, 50-59, 40-49, 30-39 and 2 rows: f, 2, 12, 22, 20, 14, 4, 1

4.2956

- c. Calculate Karl Pearson's coefficient of skewness

Table with 8 columns: x, 1, 2, 3, 4, 5, 6, 7 and 2 rows: f, 10, 18, 30, 25, 12, 3, 2

0.225

- (10 Marks)
4 a. What is regression? (03 Marks)
b. Calculate rank correlation coefficient for the data, after assigning ranks. (07 Marks)

Table with 2 columns: Marks in stat, Marks in Maths and 10 rows of data points

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

- c. Obtain the two lines of regressions for the data.

X :	1	2	3	4	5	6	7	8
Y :	10	20	30	40	50	60	70	80

(10 Marks)

- 5 a. What is time series analysis?
b. For the data, obtain 3 yearly and 4 yearly moving average.

(03 Marks)

t :	1989	90	91	92	93	94	95	96	97	98	99
X :	2	6	1	5	3	7	2	6	4	8	3

(07 Marks)

- c. For the data, calculate Fisher's price index number.

Commodity	p.	q.	p.	q.
A	8	4	10	9
B	7	3	8	5
C	6	4	5	8
D	5	2	7	4

(10 Marks)

- 6 a. State addition theorem of probability. (03 Marks)
b. Describe the components of time series. (07 Marks)
c. A merchant's accounts file consists of 20 accounts of which 6 are delinquent and 14 non delinquent. An auditor selects randomly 5 of these accounts.
i) What is probability that he find exactly 2 delinquent accounts?
ii) Find expected number of delinquent accounts in sample selected. (10 Marks)
- 7 a. What is the difference between probability and non probability sample? (03 Marks)
b. Describe merits and demerits of census as compared to sample survey. (07 Marks)
c. Describe various sampling methods. (10 Marks)
- 8 a. What is type I error? (03 Marks)
b. Describe the steps in testing of hypothesis. (07 Marks)
c. Test effectiveness of training using chi square for the data. Table value of [chi square at 5% 1.0.5 is 3.841]

	Number of clerks committing error	Number of clerks with errors	Total
Trained	70	530	600
Untrained	155	745	900
Total	225	1275	1500

(10 Marks)

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