

MMS/M04
Business Statistics
Paper Cp -102

Time : 3 Hours

MM:70

Note:- Attempt Five questions in all, Question No. 1 is compulsory. All questions carry equal marks.

- 1 Calculate Karl Pearson's coefficient of skewness from the following data.

Marks more than :	5	15	25	35	45	55	65	75	85
No. Of Students :	120	105	96	85	72	58	42	12	0

- 2(a) Explain Bay's Theorem.
 (b) 8 Ships out of 10 arrive safely at a port. Find the probability of 3 or less ships arriving safely.
- 3 Explain (a) Sampling and non-Sampling errors
 (b) Sampling distribution
- 3 Following information is available in respect of two brands of bulbs (Price same)

	Brand A	Brand B
Mean Life (Hrs.)	1300	1248
S.D. (Hrs.)	82	93
Sample Size	100	100

Which brand should be preferred at 5 percent level of significance?

- 4 Draw X and R chart for the following data:

Sample No.	1	2	3	4	5	6	7	8	9	10
Mean (X)	11.2	11.8	10.8	11.6	11.0	9.6	10.4	9.6	10.6	10.0
Range (R)	7	4	8	5	7	4	8	4	7	9

- 5 Discuss the problems encountered in construction of Index numbers.
- 6 For the following data, set up regression equation and estimate the sales for an advertising expenditure of Rs 75 lakhs.
- 7 Write notes on any two.
 (a) Components of time series
 (b) O.C. curve
 (c) Application of chi-square test