

SECOND YEAR B.Com. DEGREE EXAMINATION, MARCH/APRIL 2006

Part III—Commerce

Paper I—BUSINESS STATISTICS

Maximum : 80 Marks

Time : Three Hours

Answers may be written **either** in English **or** in Malayalam.

Part A

Answer any **ten** questions.
Each question carries 1 mark.

1. Define Statistics.
2. What is secondary data ?
3. What is Stub ?
4. What is infinite population ?
5. What is mode ?
6. What do you mean by "Platykurtic" ?
7. Probability of an event is given as $- .84$. Comment.
8. Why is Fisher's index called ideal index ?
9. What would be your interpretation if correlation coefficient $r = - 1$?
10. State the formula for combined mean.
11. Define Time Series.
12. What do you mean by simple correlation ?

(10 × 1 = 10 marks)

Part B

Answer any **ten** questions.
Each question carries 4 marks.

13. Point out some advantages of sampling.
14. What do you mean by Systematic sampling ?
15. What are the essential characteristics of a good average ?
16. "Statistics affects everybody and touches life at many points." Comment.
17. What is Scatter diagram ?
18. What are the uses of Index Numbers ?

... weight of 200 gms. If an apple weighing 250 gms. ... systematic mean

13. Point out some advantages of sampling.
14. What do you mean by Systematic sampling ?

20. Calculate median of the following data :—

Wage (less than) Rs. :	10	20	30	40	50	60	70	80
No. of workers :	15	35	60	84	96	127	198	250

21. If $N = 10$, $\bar{X} = 12$, $\Sigma X^2 = 1530$, find coefficient of standard deviation and coefficient of variation.

22. Find the trend for the following series under a three year weighted moving average with weights 1, 2, 1 respectively :

Year :	1	2	3	4	5	6	7
Price :	2	4	5	7	8	10	13

23. If $P(A) = .5$, $P(B) = .6$ and $P(A \cap B) = .2$, find (a) $P(A \cup B)$; (b) $P(A')$.

24. The following particulars are given :

	X	Y
Arithmetic mean ...	36	85
Standard deviation ...	11	8

Correlation coefficient between X and Y = 0.66. State the two regression equations.

(10 × 4 = 40)

Part C

Answer any two questions.

Each question carries 15 marks.

25. Find Karl Pearson's coefficient of Skewness from the following data :—

Size :	5	8	10	12	15	18
Frequency :	3	8	14	20	13	2

26. Two urns contain respectively (10 white, 6 red and 9 black balls) and (3 white, 7 red and 4 black balls). One ball is drawn from each urn. Find the probability that (a) both balls are red and one is black; (c) both balls are of the same colour.

27. The budget of middle class families in Kozhikode city gave the following details :—

Expenses	Food	Rent	Clothing	Fuel	Miscellaneous
Price (2004) ...	150	30	75	25	40
Price (2005) ...	145	30	65	23	45
Weight ...	35	15	20	10	20

Comment on the changes in cost of living of 2005 when compared with 2004.

(2 × 15 = 30)