



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

Third Semester B.Com. Degree Examination, November 2016
First Degree Programme under CBCSS
Complementary Course – III: (for Commerce)
AUCO331: Business Statistics
(for 2014 Admissions – Improvement Only)

Time: 3 Hours

Max. Marks: 80

SECTION – A

Answer ALL questions in one or two sentences.

1. Define Statistics.
2. What is Geometric Mean ?
3. What do you mean by Probable Error ?
4. What is meant by Stratified sampling ?
5. What is Linear – Regression ?
6. Define Factor Reversal Test.
7. What do you meant by Variance ?
8. What is secular trend ?
9. What is classical probability ?
10. Define a Random Variable.

(10 × 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, each in a short paragraph not exceeding 50 words.

11. Differentiate Questionnaires from Schedules.
12. List out the objectives of measuring dispersion.
13. Explain the utility of Regression analysis.
14. What are the methods of measuring trends ?

15. What do you mean by Axiomatic approach to probability ?
16. What do you mean by Law of Statistical Regularity ?
17. Calculate the Harmonic mean from the following:
250 75 25 15 10 5
18. The mean marks of 100 students were found to be 50. Later on it was discovered that a score of 87 was misread as 78. Find the correct mean.
19. Distinguish between mean & median ?
20. Find out the Probable Error if $r = 0.6$ and $n = 64$.
21. From the following series determine the value of range and its co-efficient.

Marks	:	10	20	30	40	50	60	70	80
No. of Students	:	3	6	5	7	9	4	8	7
22. Determine the value of median from the following items.
Income : 110 115 140 117 109 113 120

(8 × 2 = 16 Marks)

SECTION – C

Answer any SIX questions, each in a paragraph not exceeding 120 words.

23. Differentiate between mean deviation and standard deviation.
24. What are the merits and demerits of moving average method ?
25. What are the characteristics of Fisher's ideal index ?
26. Distinguish between Correlation and Regression Analysis.
27. Explain different measures of central tendency ?
28. Briefly explain the role of statistics in business decision making ?
29. Find a four yearly moving average and the centered four year moving average from the following data:
Year : 2000 2001 2002 2003 2004 2005 2006 2007
Out put : 301 454 393 414 424 464 466 492
30. From the following data calculate Fisher's Ideal Index Number and see whether it satisfies both Time Reversal and Factor Reversal Tests. Take 2000 as base year.

Commodity	2000		2006	
	Price	Expenditure	Price	Expenditure
A	6	30	12	84
B	7	49	11	66
C	10	80	15	75
D	4	20	10	60

31. From the following data gives the age and blood pressure of 10 persons:

Age :	56	42	36	47	49	42	60	72	63	55
Blood Pressure:	147	125	118	128	145	140	155	160	149	150

(6 × 4 = 24 Marks)

SECTION – D

Answer any TWO questions, not exceeding four pages.

- 32. What is sampling methods ? Explain the important methods to select a sample.
- 33. What do you mean by Index Numbers ? Explain the different types of Index Numbers.
- 34. The marks of 9 students in two tests are given below. Calculate the co – efficient of correlation by the method of rank difference.

Test I :	50	60	65	50	55	60	50	30	40
Test II :	10	20	25	15	20	30	35	5	7
- 35. Briefly explain Time Series analysis ? With the help of example, explain the different method of measuring Trend ?

(2 × 15 = 30 Marks)

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