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R – 2443

ALL SAINTS COLLEGE LIBRARY TRIVANDRUM

Reg. No. : .....

Name : .....

Fourth Semester B.Com. Degree Examination, July 2023

First Degree Programme under CBCSS

Complementary Course

CO 1431/CX 1431/CC 1431/HM 1431 : BUSINESS STATISTICS

(Common for Commerce/Commerce and Tax Procedure and Practice/Commerce with Computer Application/Commerce and Hotel Management and Catering)

(2018 Admission Onwards)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences each. Each carries **1** mark.

1. Define statistics.
2. What is discrete variable?
3. What do you mean by population?
4. What is meant by distrust of statistics?
5. Define quartile deviation.
6. What is positive correlation?

7. What do you mean by index numbers?

8. What is statistical unit?

9. What is analysis of time series?

10. What is secular trend?

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions in not exceeding one paragraph. Each question carries **2** marks.

11. What are the different methods of sampling?

12. What do you mean by fixed base index numbers?

13. Distinguish between linear and non linear correlations.

14. How do you compute range and its coefficient?

15. What is concurrent deviation method?

16. List out the various measures of dispersion.

17. Distinguish between variables and attributes.

18. What is cost of living index?

19. What do you mean by standard error of estimate?

20. Write a note on factor reversal test.

21. What is stratified sampling?

22. Explain the law of statistical regularity.

(8 × 2 = 16 Marks)

SECTION – C

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

23. What are the properties of Karl Pearson's coefficient of correlation?
24. Distinguish between correlation and regression.
25. What are the merits of the method of moving averages of obtaining trend?
26. Discuss the need of sampling.
27. What are the uses of index numbers?
28. Briefly explain the methods of measuring long term trend?
29. Compute 3 yearly moving average for the following data

Year	2015	2016	2017	2018	2019	2020
Industrial accidents	103	79	69	64	47	32

30. Compute simple index number by aggregative method from the following data

Commodities	Price in 2015	Price in 2020
A	11	17
B	10	15
C	16	19
D	14	18
E	8	12

31. What are the problems in construction of index numbers?

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. Compute coefficient of correlation for the following data.

X	2	4	6	8	10	12
Y	16	14	13	11	9	6

33. From the following data, find the regression equation of y on x and compute the value of y if the value of x is 5

x	3	2	6	7	9	10
y	5	2	8	6	8	12

34. Following are the data related with the prices and quantities consumed for the years 2015 and 2020

Commodity	2015		2020	
	Price	Quantity	Price	Quantity
A	11	17	15	15
B	9	14	14	15
C	18	15	26	18
D	15	13	27	15

Construct price index numbers by

(a) Laspeyre's method

(b) Paasche's method

(c) Bowly's - Dorbish method

(d) Fisher's method

35. Discuss the methods of collection of primary data.

(2 × 15 = 30 Marks)