TDC (CBCS) Odd Semester Exam., 2023

ECONOMICS

(3rd Semester)

Course No. : ECOSEC-301T

(Data Analysis)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer *fifteen* questions, selecting any *three* from each Unit : 1×15=15

UNIT—I

1. Define secondary data.

2. Mention one important source of collecting secondary data.

3. Mention one merit of sample survey.

4. Define random sampling.

UNIT—II

5. Define measures of dispersion.

6. Mention one merit of median.

7. Define coefficient of variation (CV).

8. What does correlation coefficient measure?

UNIT—III

9. Define probability.

10. Define sample space and sample point.

11. Define mutually exclusive events.

12. What is conditional probability?

UNIT—IV

13. Define population.

14. What is estimator?

15. What is point estimation?

16. What do you mean by unbiasedness of a statistics?

UNIT—V

17. What are index numbers?

18. Give Paasche's formula of price index number.

19. What is quantity index number?

20. What is time reversal test in index number?

SECTION—B

Answer *five* questions, selecting *one* from each Unit : 2×5=10

UNIT—I

21. Distinguish between census method and sampling method of collecting data.

22. What is purposive sampling? Give example.

UNIT—II

23. Mention two merits of geometric mean (GM).

24. Mention two properties of regression coefficient.

UNIT—III

25. Give the classical definition of probability.

26. What are independent events? Are mutually exclusive events independent?

UNIT—IV

27. Distinguish between parameter and statistic.

28. What is interval estimation?

UNIT—V

29. Why Fisher's price index is called 'ideal' index number?

30. What is a cost of living index number?

SECTION—C

Answer *five* questions, selecting *one* from each Unit : 5×5=25

UNIT—I

31. Distinguish between primary data and secondary data with example.

32. Distinguish between Simple Random Sampling With Replacement (SRSWR) and Simple Random Sampling Without Replacement (SRSWOR).

UNIT—II

33. Prove that Karl Pearson correlation coefficient lies between –1 and +1.

34. Calculate Arithmetic Mean (AM) from the data given below :

Marks	*No. of Students*
0–10	5
10–20	12
20–30	15
30–40	25
40–50	8
50–60	3
60–70	2

UNIT—III

35. A bag contains 8 white and 6 black balls. If 5 balls are drawn at random, what is the probability that 3 are white and 2 black?

36. State and prove conditional theorem of probability.

UNIT—IV

37. Discuss efficiency and consistency criteria of an estimator. $2\frac{1}{2}+2\frac{1}{2}=5$

38. Distinguish between point estimation and interval estimation. Illustrate with numerical example.

(Continued)

UNIT—V

39. "Index numbers are economic barometers." Explain.

40. From the following data, calculate Laspeyre's formula :

	1937		*1940*	
Commodity	*Quantity* ('000 tons)	*Price per ton* (₹)	*Quantity* ('000 tons)	*Price per ton* (₹)
A	350	100	400	120
B	200	130	180	200
C	140	50	200	110
D	80	125	100	140

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