2020/TDC(CBCS)/ODD/SEM/
ECOSEC–301T/457

TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021

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 any *fifteen* of the following as directed : 1×15=15

1. Define population from the statistical view-point.

2. Mention one method of collecting primary data.

3. What is simple random sampling?

4. What is sampling error?

5. Write down any one essential of a good questionnaire.

6. Mention one merit of secondary data.

7. The sum of the deviations from mean is _____.

(Fill in the blank)

8. Mention one characteristic of a good average.

9. Extreme values have no effect on

(a) AM

(b) median

(c) GM

(d) HM

(Choose the correct option)

10. What is coefficient of variation?

11. Define skewness.

12. For a platykurtic curve, β_2 _____.

(Fill in the blank)

13. What is an 'event'?

14. Define random variable.

15. What is the chance of picking a spade from a pack of 52 cards?

16. Give one example of mutually exclusive events.

17. What is the meaning of a standard normal distribution?

18. What is p.m.f.?

19. What do you mean by the standard error of a statistic?

20. What is an interval estimation?

21. The difference between the expected value of an estimator and the value of the corresponding parameter is known as _____.

(Fill in the blank)

22. Define confidence interval.

23. $\frac{1}{n \quad 1} \quad (x \quad \bar{x})^2$ based on sample observations is an _____ estimator of population variance ^{2}.

(Fill in the blank)

24. What does the property of 'consistency' of an estimator mean?

25. Index numbers are usually expressed in _____.

(Fill in the blank)

26. Define weighted index number.

27. What is quantity index number?

28. Fisher's index number is the _____ of Laspeyres' and Paasche's index numbers.

(Fill in the blank)

29. Write the formula of simple aggregative method.

30. Most frequently used index number formulae are

(a) weighted formulae

(b) unweighted formulae

(c) fixed weight formulae

(d) None of the above

(Choose the correct option)

SECTION—B

Answer any *five* of the following questions : 2×5=10

31. What do you mean by sampling?

32. Name two sources of secondary data.

33. Name two absolute measures of dispersion.

34. How does skewness affect mean and mode?

35. Give any two limitations of classical approach to probability.

36. What is the shape of a normal curve?

37. Distinguish between parameter and statistic.

38. Differentiate between confidence limits and confidence level.

39. Mention any two problems involved in the construction of index numbers.

40. Why is Fisher's index called an ideal index number?

SECTION—C

Answer *any* **five** questions

41. What are the advantages of sample survey method over census survey method? 5

42. Discuss the merits and demerits of random sampling. 3+2=5

43. Explain why standard deviation is regarded superior to other measures of dispersion. What is its chief defect? 4+1=5

44. Find the coefficient of correlation from the following data : 5

X	65	63	67	64	68	62	70	66
Y	68	66	68	65	69	66	68	65

45. State and explain the multiplicative law of probability. 5

46. The mean of a binomial distribution is 6 and the standard deviation is given by $\sqrt{\frac{3}{2}}$. Find the distribution. 5

47. Show that the sample mean based on a simple random sample with replacement (srswr) is an unbiased estimator of the population mean. 5

48. Prove that the expectation of sample mean $\bar{x}$ is the population mean and the variance of sample mean is $\frac{^2}{n}$, where ^{2} is the population variance and n is the sample size. 5

49. What is time-reversal test? Examine whether Laspeyres' and Paasche's indices satisfy this test. 1+2+2=5

50. Construct Fisher's ideal index number for the following data : 5

Commodity	*1960* (*Base Year*)		*1968* (*Current Year*)	
	Price	*Qty.*	*Price*	*Qty.*
A	8	6	12	5
B	10	5	11	6
C	7	8	8	5

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