Model Question Paper

CORE 7 (EC5B07U)
QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

(Answers may be written either in English or in Malayalam.)

Time : 3 Hrs   Total Weightage : 25

Part A – Objective Type Questions (in bunches of 4)

I.   Choose the correct alphabet only.

1.   Geographical classification means classification according to

(A) Time   (B) Location   (C) Attributes   (D) Class intervals

2.   Every irrational number is also

(A) Whole numbers   (B) Real numbers
(C) Rational numbers   (D) Natural numbers

3.   Laspeyere's Index formula uses the weights of the

(A) Base year quantity   (B) Current year quantity
(C) Average of the weights of a number of years   (D) None of the above

4.   The time series consists of .... components.

(A) 5   (B) 4   (C) 6   (D) None of these

(Weightage 1)

5.   Lottery method is a method of drawing

(A) Quota sampling   (B) Judgement sample
(C) Random sample   (D) None of these

6.   A square matrix whose elements above and below the diagonal elements are all zero is called

(A) zero matrix   (B) Triangular matrix
(C) Diagonal matrix   (D) Scalar matrix

7.   Laspeyre's index number has

(A) maximum bias   (B) no bias   (C) downward bias   (D) upward bias

8.   Arrangement according to time is known as

(A) Alphabetical   (B) Conventional   (C) Chronological (D) None of these

(Weightage 1)

9.   The point of intersection of demand curve and supply curve is

(A) Marginal Revenue   (B) Average supply
(C) Market equilibrium   (D) Marginal cost

10. Among the following functions which represents a straight line?

    (A) $y = 3x^2 + 2x - 5$ (B) $y = 4x + 8$ (C) $x^2+y^2=16$ (D) $x^2-y^2=16$

11. Value of a commodity is

    (A) p+q   (B) p×q   (C) p-q   (D) None of these

12. When the class intervals are so fixed that the upper limit of one class is the lower limit of the next class is known as

    (A) Exclusive method   (B) Inclusive method
    (C) Frequency distribution   (D) None of these

                                                    (Weightage 1)

13. The set of all even primes is:

    (A) Finite set   (B) Infinite set   (C) Singleton set   (D) Null set

14. Consumer price index number is constructed for

    (A) a well defined section of people   (B) workers only
    (C) all people   (D) all the above

15. Histogram is suitable for the data presented in

    (A) continuous series   (B) discrete series
    (C) individual series   (D) All of the above

16. The set of all prime numbers x such that $1 < x < 10$ is a

    (A) Finite set   (B) Null set   (C) Singleton set   (D) None

                                                    (Weightage 1)

Part B - Short Answer Questions

II.   Answer any five out of eight, not exceeding 50 words.

17. Distinguish between primary data and secondary data.

18. What are the objectives of classification of data?

19. Define statistical data. How are they significant in research?

20. Distinguish between variable and constant.

21. Write a short note on 'Venn diagram'.

22. Explain Cartesian product with an example.

23. Explain weighted and unweighted index numbers.

24. Discuss Family Budget Method.

                                                    (Weightage 1 × 5 = 5)

Part C - Short Essays

III. *Answer any four questions not exceeding 150 words. Each question carries 2 weightages.*

25. Write a note on the census and sampling methods of data collection.
26. Draw a histogram from the following table:

Class	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	5	20	32	40	20	5

27. What are the major characteristics of real numbers?
28. Explain the important functions in economic theory with suitable diagrams.
29. Briefly discuss the characteristics of an Index Number.
30. Calculate the Index Number by aggregative method from the following.

Items	*Quantity*	*Prices (1996)*	*Prices (2002)*
Bricks	1000	10	16
Timber	700	20	21
Plaster board	1500	5	6
Sand	850	2	3
Cement	100	7	4

(Weightage 2 × 4 = 8)

Part D - Long Essays

IV. *Answer any two questions not exceeding 450 words. Each question carries 4 weightages.*

31. Draw a less than and greater than ogive in the same graph from the following table.

Class	0-9	10-19	20-29	30-39	40-49	50-59
Frequency	2	5	10	8	3	2

32. From the following data compute Fisher's Ideal Index:

Commodity	Current Year		Base Year	
	Price	Quantity	Price	Quantity
A	10	56	6	50
B	2	120	2	100
C	6	60	4	60
D	12	24	10	30
E	12	36	8	40

33. Explain the components of a time series.

(Weightage 4 × 2 = 8)