

Reg. No.:



Name:

University of Kerala

U8740

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

ECONOMICS

UK2DSCECO100 - Tools for Economic Analysis

Academic Level: 100-199

Time: 2 Hours(120 Mins)

Max. Marks: 56

**Part A.6 Marks:Time 5 Minutes.(Cognitive Level :Remember(RE)/Understand(UN)) Objective Type.1 mark each,
Answer all questions**

Qn No.	Question	CL	CO
1	Which among the following is the best measure of dispersion? Options : A)Standard Deviation B)Mean Deviation C)Quartile Deviation D)Range	RE	4
2	Which of the following is a prime number? Options : A)3 B)12 C)6 D)9	RE	1
3	If the standard deviation of a dataset is zero, what can be concluded about the data? Options : A)All values in the dataset are the same B)The mean of the dataset is zero. C)The dataset has both positive and negative values. D)The dataset is skewed.	UN	4
4	What does a downward-sloping demand curve indicate? Options : A)When the price rises, the quantity demanded falls B) When the quantity supplied decreases, the price goes up C) When the price drops, the quantity supplied increases. D)When the price rises, the quantity demanded rises	UN	2
5	Let $f(x)=x^2+1$. Compute $f(-1)$. Options : A)0 B)-1 C)2 D)-2	UN	2
6	Positive integers, Negative integers and the number Zero can be collectively called as Options : A)Natural Numbers B)Integers C)Rational Numbers D)Real Numbers	UN	1

Part B.10 Marks.Time:20 Minutes (Cognitive Level:Understand(UN)/Apply(AP))Two-three sentences.2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	What is a parameter?	UN	1
8	How to find out the slope of a straight line?	UN	3
9	A man Sells 7 dogs And 8 Cows at Rs 2940 and 5 dogs and 6 cows at Rs. 2150. Form respective equations and solve them to find selling price of each?	AP	3
10	Find the equilibrium price and the quantity given by $D=2-0.2p$ and $S=0.2+0.07p$	AP	2
11	The number of books students read last month are: 2, 3, 5, 4, 4, 3, 6, 5. Find the mode of the number of books.	AP	1

Part C.16 Marks.Time:35 Minutes.(Cognitive Level :Apply(AP)/Analyse(AN))Short Answer.4 marks each, Answer all 4 questions,choosing among options * within each question

Qn No.	Question	CL	CO
12	A) If the cost function $c(x) = 100 + 20x$ and the revenue function $R(x) = 50x$. How many units do you need to sell to breakeven? OR B) Find $A \cup (B \cap C)$, $A \cap B$, $B \cap C$, $A \cap (B \cap C)$, If $A = \{1, 2, 3\}$, $B = \{2, 4, 6\}$ and $C = \{1, 4, 5\}$.	AP	3, 3
13	A) Solve: $x^2 - 5x + 6 = 0$ by using quadratic formula. OR B) Construct a demand schedule and sketch the demand curve from the following function, $Q_D = 10 - 5P$.	AP	2, 3
14	A) Explain Real Number system. Distinguish between real, complex and prime numbers. OR B) Differentiate between explicit and implicit functions in economics. Explain how will you model a production function by incorporating explicit and implicit variables?	AN	1, 2
15	A) Explain the advantages and disadvantages of using the median as a measure of central tendency in economic data analysis. In which situation median is more suitable than the mean? OR B) Examine how cost curves and revenue curves help in determining the break-even point for a business?	AN	4, 3

Part D.24 Marks.Time: 60 Minutes.(Cognitive Level :Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer 6 Marks each.Answer all 4 questions choosing among options * within each question

Qn No.	Question	CL	CO
16	A) What do you mean by a function? Explain economic functions supply, demand, cost, revenue, profit, consumption and production functions? OR B) Analyse the real number system with various types. Discuss various axioms of real numbers.	AN	2, 1
17	A) Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ be the universal set. If $A = \{2, 4, 6, 8\}$, $B = \{1, 2, 3, 4\}$ and $C = \{2, 4, 7, 9\}$ find: a) A' (complement of A) b) B' (Complement of B) c) $A' \cup B'$ d) $A' \cap B'$ e) Prove that $(A \cup B)' = A' \cap B'$ using the given sets (De Morgan's Law) f) Find $(A \cap B)'$ and verify that it is equal to $A' \cup B'$. OR B) Find the distance between two points A and B whose coordinates are (3, 2) and (9, 7) respectively using distance formula?	EV	2, 4
18	A) Find the values of x and y from the following equations: $2x + 3y = 7$ $x - 2y = -3$ OR B) In a perfect competition, the demand curve of a commodity is $D = 19 - 5P$ and supply curve is $S = 5P - 1$. Evaluate the equilibrium price and quantity.	EV	4, 1
19	A) Construct a demand schedule and graph for a newly launched product in the market. OR B) Create a data set of 6 values where the mean and median are both 15. List the values and verify both measures.	CR	2, 4

Qn No.	Question	CL	CO