

Reg. No.:



Y8299

Name:

University of Kerala

Second Semester FYUGP Degree Examination, June 2026

Discipline Specific Core Course

ECONOMICS

UK2DSCECO100 - Tools for Economic Analysis

Academic Level: 100-199

2024-Admission

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 of the following is not a mathematical average? Options : A)Median B)Arithmetic mean C)Geometric mean D)Harmonic mean	RE	4
2	Any number that can be expressed as a ratio of two integers is called as Options : A)Rational Number B)Irrational Number C)Real number D)Complex number	RE	1
3	Which among the following data sets have the highest mode Data set 1: 2,5,11,2,7,20,2,5,14,2 Data set 2: 2,10,20,10,7,10,8,1,3,11 Options : A)Data set 1 B)Data set 2 C)Both data sets D)No mode	UN	4
4	The total cost function of a firm is given by: $TC=50+5Q$ where TC is the total cost and Q is the quantity of output produced.What is the total cost when the firm produces 10 units of output? Options : A)100 B)150 C)200 D)250	UN	2
5	If a set has 3 elements how many subsets it can generate? Options : A)3 B)6 C)8 D)9	UN	2
6	An equation in which all variables are raised to the first power is known as Options : A)Linear Equation B)Quadratic Equation C)Cubic Equation D)All of the above	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	Distinguish between real number and natural number?	UN	1
8	What are the properties of an indifference curve?	UN	3
9	A student scores 72, 85, 78, and 90 in 4 subjects. What is the mean score?	AP	1
10	Solve the quadratic equation $x^2 + 6x + 9 = 0$	AP	2
11	1. The consumption function is given by $C = 200 + 0.8Y$, where C is consumption and Y is income. Find the level of consumption when the income is RS. 1000.	AP	3

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) Consider the sets of customers who purchase product A and product B in a market: Set A = {10, 20, 30, 40} (Customers purchasing product A), Set B = {30, 40, 50, 60} (Customers purchasing product B). Perform the following set operations: (a) $A \cup B$, (b) $A \cap B$, (c) $A - B$, (d) $B - A$. OR B) Given cost function, $TC = 5x + 300$. a) Find TC, TFC, TVC, AC and AVC, when 10 units are produced.	AP	2, 2
13	A) Solve: $(x+2)(x+3) + (x-3)(x-2) - 2x(x+1) = 0$ OR B) Total revenue of a firm is $R = 20 - x^2$, where x is output. Find AR of the firm and find total revenue when $x = 8$ units.	AP	1, 3
14	A) Two friends went to watch a movie at Lulu Mall in Kochi and bought some snacks. One friend bought 2 movie tickets and 3 packets of popcorn for ₹360. The other friend bought 1 movie ticket and 2 packets of popcorn for ₹220. Find the price of popcorn and movie ticket? OR B) Explain Cost function? An automobile spareparts company (X) has to spend a monthly amount of 10000 on the rent and salaries of its staff. It spends an amount of 10 per unit of output (Q) by way of day to day expenses. Construct a cost function.	AN	1, 1
15	A) Describe the advantages and disadvantages of sampling with examples. Mention the reasons why sampling is preferred over a census.	AN	4, 4

Qn No.	Question	CL	CO
	OR B) Differentiate between absolute and relative measures of dispersion? Write down the absolute and relative measures of range, mean deviation, quartile deviation and standard deviation.		

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) Differentiate and analyse the following mathematical functions 1.Linear function 2.Quadratic function 3. Polynomial functions 4.Exponential functions OR B) Classify the following numbers into natural numbers, integers, rational numbers, irrational numbers, real numbers, complex numbers and prime numbers. $\frac{1}{3}$, -5, 0, $\frac{3}{4}$, $\sqrt{2}$, $-2+3i$, $\sqrt{-7}$, 11, $-\frac{5}{7}$, $\frac{30}{2}$, 1, -1, $\frac{7}{102}$, 20, -100, 0.9, $\sqrt{\frac{3}{2}}$, 543, 5.3, $\frac{2}{2}$.	AN	2, 1
17	A) Explain demand function. Construct market demand schedule and plot the demand curve for the demand function $D= 100-5P$ by substituting values 2,5,10,16 and 20 for P. OR B) What is a coordinate system? Plot the points (3,2), (0,3), (1,5), (2, -1) and (1,0) on a graph.	EV	4, 4
18	A) Distinguish between exclusive and inclusive frequency distribution? Convert the inclusive series into exclusive series. Marks 10-14 15-19 20-24 25-29 30-34 Frequency 4 5 8 5 4 Also draw a less than ogive using the given series. Also draw a less than ogive using the given series. OR B) Explain the various concepts related to the Real number system. What are the axioms of Real numbers?	EV	4, 1
19	A)	CR	2, 4

Qn No.	Question	CL	CO
	Create a demand function with a negative slope and a supply function with a positive slope. Assume that at price ₹15, demand is 180 units and supply is 60 units. At price ₹25, demand is 100 units and supply is 140 units. Find the equilibrium price and quantity. OR B) Create a dataset of 5 numbers with an arithmetic mean of 20 and where the highest number is double the lowest.		