

Reg. No.:



Name:

University of Kerala

Y8300

Second Semester FYUGP Degree Examination, June 2026

Discipline Specific Core Course

ECONOMICS

UK2DSCECO100 - Tools for Economic Analysis

Academic Level: 100-199

2025-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	The given function $ax^2 + bx + c = 0$ is a ----- function Options : A)Linear B)Quadratic C)Cubic D)Exponential	RE	1
2	A set containing only one element is called Options : A)Infinite set B)finite set C)Singleton set D)Equal set	RE	1
3	A variable that takes only whole number values is called: Options : A)Continuous variable B)Discrete variable C)Dependent variable D)Parameter	UN	2
4	Identify the shape of the graph obtained from a quadratic function Options : A)Straight line B)Hyperbola C)Parabola D)Circle	UN	4
5	Which of the following best describes a universal set? Options : A)A set with only one element B)A set that has equal elements C)A set containing no elements D)A set containing all elements under consideration	UN	1
6	Which of the following is primary data?	UN	2

Qn No.	Question	CL	CO
	Options : A)Census data B)RBI Bulletin data C)World Bank data D)Data from a published journal		

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	Differentiate between dependent and independent variables with examples	UN	2
8	Define Demand Function	UN	3
9	In a class of 40 students, 25 study Economics and 18 study Mathematics. If 10 study both, find how many study only Economics.	AP	3
10	The sum of 5 observations is 100. Find the mean.	AP	1
11	Explain cubic equation with an example	AP	2

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) Solve the following simultaneous equations for x and y $3x+2y= 16$ $2x+y= 9$ OR B) Solve the following system of simultaneous equations and interpret the solution economically: $2P + 3Q = 18$ $4P - Q = 8$	AP	3, 3
13	A) Find the range and quartile deviation for the following data: 10, 15, 18, 20, 25, 30, 35, 40	AP	2, 2

Qn No.	Question	CL	CO
	OR B) Calculate the mode of the following data: 5, 7, 8, 7, 6, 7, 9, 10, 7, 8		
14	A) Explain the different types of diagrams (bar diagram, pie chart, histogram, line diagram). When is each used? OR B) Draw and interpret the graph of $d = 2p + 8$	AN	4, 4
15	A) Verify the distributive law: $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ where $A = \{1, 2, 3\}, B = \{2, 4, 5\}, C = \{1, 5, 6\}$ OR B) Distinguish between one-to-one, many-to-one, and one-to-many relations with examples.	AN	4, 4

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 are the merits and demerits of median and mode? OR B) Difference Between Census and Sample Method	AN	4, 4
17	A)	EV	3, 3

Qn No.	Question	CL	CO
	Evaluate the importance of the real number system in mathematical and economic analysis. Discuss the relevance of rational and irrational numbers with suitable examples. OR B) Solve the following pair of simultaneous equations ,and evaluate whether the obtained solution satisfies both equations $3x + 2y = 13$ $2x + 3y = 12$		
18	A) Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15\}$ be the universal set. If $A = \{1, 2, 3, 4, 5\}$, $B = \{3, 4, 5, 6, 7, 8\}$, $C = \{6, 7, 8, 9, 10\}$, find (a) $A \cup B \cup C$ (b) A' (c) $A' \cup B' \cup C'$ (d) $A' \cap B' \cap C'$ (e) $A \cup B \cap C'$ OR B) 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' b) B' c) $A' \cup B'$ d) $A' \cap B'$ e) Prove that $(A \cup B)' = A' \cap B'$ using the given sets f) Find $(A \cap B)'$ and verify that it is equal to $A' \cup B'$.	EV	1, 1
19	A) Construct a demand curve from the following schedule: Price 12, 10, 8, 6, 4 Quantity	CR	3, 3

Qn No.	Question	CL	CO
	Demanded: 2, 4, 6, 8, 10 OR B) Construct a linear demand function of your own and explain how price changes affect demand.		