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School of Liberal Education

Master of Arts in Economics
Mid Term Examination - Mar 2024

Duration : 90 Minutes
Max Marks : 50

Sem IV - ECO6025 - Operations Research in EconomicsGeneral Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) What factors lead to an unbounded solution in linear programming? K2 (2)
- 2) What is the primary objective of the Simplex Method? K1 (3)
- 3) Can you describe the role of decision variables in a linear programming problem related to blending models? K2 (4)
- 4) What are the key components of a simplex tableau? K2 (6)
- 5) Develop a linear programming model to address a blending problem involving multiple ingredients and cost constraints. K3 (6)
- 6) Can you explain how the objective function is incorporated into the simplex method? K3 (9)
- 7) Evaluate the effectiveness of linear programming in solving complex optimization problems in various industries. K4 (8)
- 8) Utilize condensed tableaus to solve linear programming problems efficiently. K4 (12)

OR

Analyze scenarios where no feasible solution exists in the context of linear programming. K4 (12)