

ADMISSION NUMBER											

School of Liberal Education

Master of Arts in Economics
Semester End Examination - May 2024

Duration : 180 Minutes
Max Marks : 100

Sem IV - ECO6025 - Operations Research in Economics

General 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) Enumerate the key assumptions made in the Transportation Model. K1 (2)
- 2) Given a set of constraints, demonstrate how linear programming can be used to formulate a diet mix model. K2 (4)
- 3) Analyze a given Payoff Matrix to identify any Saddle Points. K2 (6)
- 4) Apply the simplex method to optimize a real-world scenario with multiple constraints. K3 (9)
- 5) Assess the significance of Nash Equilibrium in game theory. K3 (9)
- 6) Compare the advantages and disadvantages of using linear programming versus nonlinear programming in real-world applications. K5 (10)
- 7) Break down the elements of condensed tableaus and their role in optimization problems. K4 (12)
- 8) Critically analyze the conditions under which the simplex method may fail to converge. K5 (15)
- 9) Evaluate the strategic implications of a game where Mixed Strategies dominate. K5 (15)
- 10) Propose a classification for a game based on its characteristics and Payoff Matrix. K6 (18)