

School of Finance and Commerce

**Master of Business Administration in Financial Management
Semester End Examination - Aug 2024**

**Duration : 180 Minutes
Max Marks : 100**

Sem III - MBAF0904 - Quantitative Techniques for Managers

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) Explain the unbalanced transportation problem K1(2)
- 2) Describe the term expected term. K2(4)
- 3) Explain the basic elements of queues. K2(6)
- 4) Solve the game theory. K3(9)

Player	Player	
	B	
A	B1	B2
A1	1	2
A2	5	4
A3	-7	9
A4	-4	-3
A5	2	1
- 5) Solve the game theory. K3(9)

		Player B			
	A	B	C	D	E
	P2	6	4	14	8
	Q6	8	2	10	12
Player A	R12	10	14	12	10
	S4	0	12	6	2
- 6) Solve the game theory K5(10)

		Player B			
	A	B	C	D	
	P8	4	12	-4	
	Q8	12	4	12	
Player A	R12	4	12	-4	
	S-4	12	-4	28	
- 7) Mr. Singh had to decide whether or not to drill a tubewell at his farm. In his village, only 40% of the tubewells were successful at 60 feet of depth. Some farmers who did not get water at 60 feet drilled up to 150 feet, but only 30% struck water at 150 feet. The cost of drilling is Rs 300 per foot. Mr. Singh estimated that he would have to pay Rs 20000 for the next 5 years, if he continued to buy water from his neighbour instead of drilling the tubewell, which would have a life of 5 years. Also, if he struck water, the total cost of drawing water for 5 years from his own tubewell would be Rs 3000. If this problem is given to a decision maker, what should his/her suggestion be to Mr. Singh? Assume that all amounts are calculated in terms of the present value. Calculate the EMV K4(12)
- 8) Define the objective function that needs to be minimized. K5(15)

- 9) "A linear program can fail to have an optimal solution if there is not a feasible region" Construct with help of example K5(15)
- 10) "It is a technique that is used to determine the optimal solution of a linear objective function"Elaborate the technique in detail. K6(18)