



Duration: One Hour

Date: 05.01.2024

Time: 01.00 p.m. - 02.00 p.m.

ANSWER ALL QUESTIONS.

01.

a) Explain the Following

- i. Minimax and maximin Principles,
- ii. Two Person Zero sum game,
- iii. State the four properties that a competitive situation should have if it is to be called a competitive game.

b) Solve the game,

		<i>Player B</i>		
		Y_1	Y_2	Y_3
<i>Player A</i>	X_1	4	6	4
	X_2	2	10	0

Then,

- i. Find the saddle point.
- ii. Find the Value of the game.
- iii. Determine the optimal Strategies for player A and player B.

02.

a) Find the solution of game theory problem using dominance method.

		<i>Player B</i>			
		$B1$	$B2$	$B3$	$B4$
<i>Player A</i>	$A1$	3	5	4	2
	$A2$	5	6	2	4
	$A3$	2	1	4	0
	$A4$	3	3	5	2

b) Reduce the following game to an LLP. (No need to Solve)

		<i>Player B</i>		
		<i>B1</i>	<i>B2</i>	<i>B3</i>
<i>Player A</i>	<i>A1</i>	3	-4	2
	<i>A2</i>	1	-3	-7
	<i>A3</i>	-2	4	7