Transportation Problem

Special cases

How to resolve Degeneracy?

▶ In order to resolve degeneracy a very small value ε is allocated in the least cost independent cell

▶ Independent cell-a cell from which a loop can not be formed

▶ Identify the independent cell in the matrix first and then allocate ε

Resolving degeneracy

✗	✓	(60) 3
(50) 3	✓	(20) 9
✓	(80) 3	✓ (ε) 5

Least Cost Independent cell

Maximisation transportation problem

Always maximisation problems need to be converted into minimisation problem
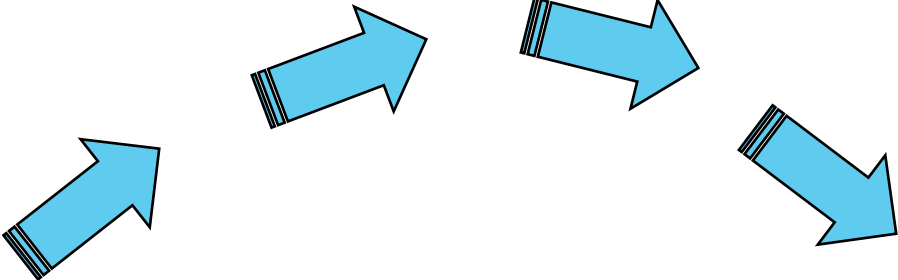
It can be done by subtracting all other elements in the matrix from the highest element in matrix

Note: if a given transportation problem is not balanced and is of maximisation type first balancing to be done and then need to be converted into minimisation type

How to identify a maximisation problem?

- Maximisation generally done for profit ..hence any questions that appear with profit has to be converted into minimisation type

- While writing final answer it is to be taken care that profit is written and not the cost

Maximisation to minimisation

80	90	100
70	50	60

20	10	0
30	50	40