SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.
B.Com.(CA) END SEMESTER EXAMINATIONS APRIL-2023
SEMESTER - IV
21UCCAT4004 - Elements of Operation Research

Total Duration : 2 Hrs. 30 Mins.   Total Marks : 60

Section B

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Explain the characteristics of Operation Research.

2. List out the limitation of OR.

3. Identify the advantages of formulating LP model.

4. What are the steps involved in the simplex method of LLP?

5. State the benefits of graphical method of LLP.

6. Differentiate the transportation problem from assignment problem.

7. Write the features of assignment problem.

8. What are the various types of games in game theory?

Section C

Answer any **THREE** questions $(3 \times 10 = 30$ Marks)

9. Enumerate the techniques and application of Operation Research.

10. Using the simplex method to find the optimal solutions of the following LP problem. Max Z= $7x_1 + 5x_2$

11. Solve the given linear programming problems graphically: Max Z = 8X+Y and the constraints.

12. A computer centre has four expert programmers and needs to develop four application programmes. The head of the computer centre, estimates the computer time (in minutes) required by the respective experts to Develop the application programmes as follows:

		Programmes			
		A	B	C	D
Programmes	1	120	100	80	90
	2	80	90	110	70
	3	110	140	120	100
	4	90	90	80	90

Find the assignment pattern that minimises the time required to develop the application programmes.

Contd...

13. Solve the following pay – off matrix:

	Player B				
	Strategies	I	II	III	IV
Player A	I	1	7	3	4
	II	5	6	4	5
	III	7	2	0	3

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