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.
BCA. END SEMESTER EXAMINATION APRIL/NOV - 2021
SEMESTER - V
13UCACE5A01 **&** UCA/CE/5A01- **Resource Management Technique**

Total Duration : 3 Hrs		**Total Marks : 75**	
MCQ	: 30 Mins	MCQ	: 15
Descriptive	: 2 Hrs.30 Mins	Descriptive	: 60

Section B

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

1. Write down the Advantages of LP

2. Describe about special cases in Simplex.

3. Describe the steps in Hungarian method.

4. What are the basic project planning techniques? Briefly explain them.

5. What are the application guidelines for network construction in CPM method?

6. For the game with the following pay off matrix determine the optimal strategy and value of the game

	B	
A	5	1
	3	4

7. What are the assumptions that are usually trade while dealing with sequencing problem?

8. In a computer centre after studying carefully the head of computer centre estimated the computer time in minutes required by the experts for the application programme as follows.

	A	B	C
1	120	80	110
2	100	90	140
3	80	110	120

Assign the programmes to be programmer in such a way that the total computer time is minimum.

Section C

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

9. Solve the following LPP by simplex method

Max $Z = 6X_1 + 4X_2$ $Subject$ to $X_1 + 2X_2 \leq 720$ $2X_1 + X_2 \leq 780$ $X_i \leq 320$

10. A ready made garments manufacture has to process fire items through 2 stages of production viz cutting and saving. The time taken for each of these items at the different stages is given below.

Item	1	2	3	4	5
Cutting	5	7	3	4	6
Saving	2	6	7	5	9

Find the order and elapsed time

11. A project has the following characteristics construct a part network. Find the expected time and variance of each activity.

ACTIVITY	ta	tb	T(v)
1-2	1	5	1-5
2-3	1	3	2
2-4	1	5	3
3-5	3	5	4
4-5	2	4	3
4-6	3	7	5
5-7	4	6	5
6-7	6	8	7
7-8	2	6	4
7-9	5	8	6
8-10	1	3	2
9-10	3	7	5

12. Solve the game

	Player B		
	1	3	6
Player A -1	5	2	
	3	-3	-2

13. What are the different methods to solve the transportation problem? Explain them in detail.