WORKING WITH BANKER'S ALGORITHM & MEMORY MANAGEMENT

1. A system with following processes and resources exits. Write a program for the implementation of Banker's Algorithm to check whether the system is safe state or unsafe state?

Process	Allocation			Max. Demand			Available Resources		
	X	Y	Z	X	Y	Z	X	Y	Z
P0	0	1	0	7	5	3	3	3	2
P1	2	0	0	3	2	2			
P2	3	0	2	9	0	2			
P3	2	1	1	2	2	2			
P4	0	0	2	4	3	3			

2. A system with following processes and resources exits. Write a program for the implementation of Banker's Algorithm to check whether the system is safe state or unsafe state?

Process	Current Loan				Max. Need				Available Resources			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

3. Consider the following page reference string

   3, 2, 1, 2, 3, 6, 4, 7 2, 3, 4, 2, 1, 5, 7, 6, 2, 6, ,2, 2, 3, 3

   How many page faults would occur for OPTIMAL page replacement algorithms - with 3 frames?

4. Write a program for the implementation of Linked File Allocation Method

File Name	START	END
Factorial	12	46
Calculate	5	36
Simple Interest	8	23