Name:	ID:	Section:

Marks: 10   **Time: 15 minutes**

Question 1: [CO2] Assume that there are five processes, P0 through P4 and 3 types of resources. At T0 time we have the following system state:

	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	2	1	0	7	5	3	3	1	1
P1	2	2	1	6	2	2			
P2	1	0	2	9	2	2			
P3	2	1	1	2	2	2			
P4	0	0	2	2	1	3			

a. **[CO2] Create** the need matrix. **[4 marks]**
b. **[CO2]** Use the safety algorithm to **test** if the system is in a safe state. If safe, **find** the safe sequence. **[6 marks]**