



Daffodil International University

CSE-323 (65_K) Class Test-3

Time : 30 min, Marks : (14+1 [Attendance])

Obtained Marks

Name :	ID :
--------	------

1. A company's software system manages four resource types—A (3 instances), B(14), C(12) and D(12)—across five processes. Each process has specific resource allocations and maximum demands as shown below. Find the safe state for these processes (if possible) else discuss the way how we could have prevented it from occurring deadlock. 8

P No.	Allocation				Max			
	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2
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

2. A manufacturing company uses an automated system to allocate resources to production processes p1, p2, p3, p4 and p5. The resources, represented as r1, r2, r3 and r4 include various machines and tools. The current allocation and requests are shown in the resource allocation graph. **Now, Apply the Banker's deadlock detection algorithm and either indicate why the system is deadlocked, or specify a safe allocation sequence**

6

