

CSE321: Operating Systems
Quiz 4

Name:	ID:	Section:
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Marks: 10

Time: 15 minutes

Instructions: Answer all questions on the space provided below for each.

Question 1: [CO6] For TLB search associative look up (ϵ) is 25 ns, Hit ratio (α) is 85% and time needed for memory access is 70 ns. **Calculate** effective access time for the scenario. **[Marks 2]**

Question 2: [CO6] Logical memory space containing page numbers, CPU generated logical addresses & process data and page table are given where size of physical memory is 16 bytes and page size is 2 bytes. **Allocate** the pages in the main memory using the given data and **Map** the logical addresses in the main memory from a programmer's perspective. **[Marks 8]**

Logical memory			Page table		Main memory
Page number	Logical address	Data	Page number	Frame number	
P0	13	abc	P0	6	
P1	7	def	P1	2	
P2	2	ijk	P2	5	
P3	9	lmn	P3	1	
P4	11	opq	P4	3	

