


## National University of Computer and Emerging Sciences, Lahore Campus

	Course:	Advance Computer Architecture	Course Code:	EE502
	Program:	MS(Computer Science)	Semester:	Spring 2017
	Duration	30 mins	Total Marks:	20
	Date:	27-04-2017	Weight	3.75
	Section:	A	Page(s):	2
	Exam:	Quiz 4	Student Id:	

**Question1: Explain with example the difference between following two strategies:**

**6 marks**

1. write allocate
2. write no-allocate

**Question2: A 2-way set-associative cache has lines of 16 bytes and a total size of 8 kbytes. The 64-Mbyte main memory is byte addressable. Calculate the number of tag, index and offset bits.**

**6 marks**

**Question3: Suppose processor with base CPI of 2.0, Clock rate of 800 Mhz, Main memory access time : 300 ns, Miss rate per instruction primary cache : 15%**

**What improvement we obtain with second cache having 40ns access time, reducing miss rate to memory to 6%?**

**8 marks**