


National University of Computer and Emerging Sciences, Lahore Campus

	Course:	Design and Analysis of Algorithms	Course Code:	CS302
	Program:	BS(Computer Science)	Semester:	Spring 2018
	Duration:	10 Minutes	Total Marks:	10
	Paper Date:	6-Feb-18	Weight	4
	Section:	E	Page(s):	1
	Exam:	Quiz 1(a)	Roll No:	
			Section:	

True/False Justify your answer

1. $3^{4n} = \Theta(6^{4n})$ False as $6^{4n} = 2^{4n}3^{4n}$ so can't be the lower bound
2. $3^{4n} = O(6^{4n})$ True
3. $3^{4n} = \Omega(6^{4n})$ False
4. $\lg n = \Theta(\ln n)$ True changing base of log does not change asymptotic bounds
5. $\lg n = \Omega(\ln n)$ True