


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

	<b>Course:</b>	<b>Design and Analysis of Algorithms</b>	<b>Course Code:</b>	<b>CS302</b>
	<b>Program:</b>	<b>BS(Computer Science)</b>	<b>Semester:</b>	<b>Spring 2018</b>
	<b>Duration:</b>	<b>10 Minutes</b>	<b>Total Marks:</b>	<b>10</b>
	<b>Paper Date:</b>	<b>3-April-18</b>	<b>Weight</b>	<b>3</b>
	<b>Section:</b>	<b>C</b>	<b>Page(s):</b>	<b>1</b>
	<b>Exam:</b>	<b>Quiz 4</b>	<b>Roll No:</b>	
			<b>Section:</b>	

What is an optimal Huffman code for the following set of frequencies, based on the first 8 Fibonacci numbers?

a:1 b:1 c:2 d:3 e:5 f:8 g:13 h:21

Can you generalize your answer to find the optimal code when the frequencies are the first n Fibonacci numbers?