

CS 3653 – Discrete Mathematics for Computer Science

PA – 4	Due – Nov 17, 2023, 11:59 pm (CST)
Chapter # 6 - 8	Max. Points # 50

SN	QUESTION	Pts
1	<p>Write a program with the specified input and output. Take the value of n (≥ 2) and r (≥ 1) from the keyboard. (Based on CH-6).</p> <p>Given positive integers n and r, find the number of r-permutations when repetition is allowed and r-combinations when repetition is allowed of a set with n elements.</p>	20
2	<p>Write a program with the specified input and output. Take the value of n (≥ 2) and r (≥ 1) from the keyboard. (Based on CH-7).</p> <p>Many lotteries award prizes to people who correctly choose a set of r numbers from the first n ($\geq r$) positive integers. Find the probability that a person picks correct r numbers out of n.</p>	20
3	<p>Write a program with the specified input and output. Take the value of n (≥ 2) from the keyboard. (Based on CH-8).</p> <p>To solve the Tower of Hanoi problem with n disks using recursion.</p>	10