CSC 225 – FALL 2022 – QUIZ 1

Name: Solution
Student #:

Question [2 marks]
Given 7 distinct consonants and 4 distinct vowels, how many 5-letter strings can be formed with at least 1 vowel and 1 consonant, with no repetition of letters, where all the consonants come before all of the vowels? Give me the final numeric value of the count. [That is, use your calculator and calculate the number].

$$P(7,1)P(4,4) + P(7,2)P(4,3) + P(7,3)P(4,2) + P(7,4)P(4,1)$$

$$= (7 \times 24) + (42 \times 24) + (210 \times 12) + (840 \times 4)$$

$$= 168 + 1008 + 2520 + 3360$$

$$= 7056$$