Solution

The number of options to choice 2 vowels from 4 is equal to $\binom{4}{2} = \frac{4!}{2!2!} = 6$.

The number of options to choice 3 consonants from 5 is equal to $\binom{5}{3} = \frac{5!}{3!2!} = 10$.

Hence, the number of options to choice 2 vowels and 3 consonants is equal to $6 \cdot 10 = 60$.

So, the total number of words formed by 2 vowels and 3 consonants is equal to

$$60 \cdot 5! = 60 \cdot 120 = 7200.$$

Answer

c)7200