Question 4.2:

Theorem of expansion of integers in an integer base says that given $a, b \in N$, with $b > 1$ there exist non-negative integers $x_0, x_1, \ldots, x_n$ such that $a = x_0 + x_1 b + x_2 b^2 + \ldots + x_n b^n$, with $0 \leq x_i < b$ and $x_n \neq 0$. This is the representation of $a$ in base $b$. The representation $a$ in base $b$ is unique. ||

Since, the subset $\langle 1, q, q^2 \rangle$ is canonical and by using the theorem above. Then for any $(q$ or $n) \geq 2$, system $c$ is canonical.