1.

Probabilidad $\Big\langle \begin{array}{l} c=1 \\ c=0 \end{array}$

$$P(1/1,1) = \frac{0/1 * 0/1 * 1/3}{1/3 \cdot 0/3} = \boxed{\frac{1}{3}}$$

$$P(0/1,1) = \frac{1/2 \cdot 0/2 \cdot 2/3}{1/3 \cdot 0/3} = \frac{1}{2} \cdot \frac{2}{3} = \frac{2}{6} = \boxed{\frac{1}{3}}$$

2.

Probabilidad $\Big\langle \begin{array}{l} c=1 \\ c=0 \end{array}$

$$P(0/3,1,7) = \frac{0/3 \cdot 0/3 \cdot 0/3 \cdot 3/4}{0/4 \cdot 1/4 \cdot 1/4} = \boxed{\frac{3}{4}} = \boxed{0'75}$$

$$P(1/3,1,7) = \frac{0/1 \cdot 0/1 \cdot 0/1 \cdot 1/4}{0/4 \cdot 1/4 \cdot 1/4} = \frac{1}{4} = \boxed{0'25}$$

3.

Probabilidad $\Big\langle \begin{array}{l} c=1 \\ c=0 \end{array}$

$$P(1/2,3,4,0) = \frac{0/2 \cdot 0/3 \cdot 1/3 \cdot 0/3 \cdot 3/5}{0/5 \cdot 0/5 \cdot 1/5 \cdot 1/5} = \frac{1}{5} = \boxed{0'2 \, 98}$$

$$P(0/2,3,4,0) = \frac{0/2 \cdot 0/2 \cdot 0/2 \cdot 1/2 \cdot 2/5}{0/5 \cdot 0/5 \cdot 1/5 \cdot 1/5} = \frac{1}{5} = \boxed{0'2 \, 8}$$

4.

Probabilidad $\Big\langle \begin{array}{l} c=1 \\ c=0 \end{array}$

$$P(1/2,1,1,4,6) = \frac{1/4 \cdot 1/4 \cdot 2/4 \cdot 0/4 \cdot 0/4 \cdot 4/7}{1/7 \cdot 1/7 \cdot 2/7 \cdot 0/7 \cdot 1/7} = \frac{1}{56} = \boxed{0'0178}$$

$$P(0/2,1,1,4,6) = \frac{0/3 \cdot 0/3 \cdot 0/3 \cdot 0/3 \cdot 1/3 \cdot 3/7}{1/7 \cdot 1/7 \cdot 2/7 \cdot 0/7 \cdot 1/7} = \frac{1}{7} = \boxed{0'142}$$