$k = 6, n = 6, \quad p(\boxed{\,\cdot\,}) = p_1, \ldots \quad \sum_{i=1}^{k} p_i = 1$

$\omega = (\,\boxed{::}\,, \boxed{:::}\,, \boxed{::}\,, \boxed{\cdot}\,, \boxed{\therefore}\,, \boxed{\therefore}\,)$

$X_1 = 1, X_2 = 0, X_3 = 2, X_4 = 2, X_5 = 0, X_6 = 1$