

Quiz #7

Typical Answer : (به کوردی / عربي)

بهروار: ۲۳-۱۱-۲۰۲۳

Q1/ Two types of birds are classified according to their colors. Class A(6,2,14), and class B(5,3,17). Use cosine inverse method as a similarity measure to determine the class of an unknown bird C (2,0,15).

Quiz

Bird A (6, 2, 14)

Bird B (5, 3, 17)

Bird C, the unknown (2, 0, 15)

$$|A| = \sqrt{236}$$

$$|B| = \sqrt{323}$$

$$|C| = \sqrt{229}$$

$$A \cdot C = 222$$

$$B \cdot C = 265$$

$$\theta_{AC} = \cos^{-1} \left(\frac{222}{\sqrt{236 \times 229}} \right) = 17.26^\circ$$

$$\theta_{BC} = \cos^{-1} \left(\frac{265}{\sqrt{323 \times 229}} \right) = 13^\circ$$

* The unknown bird (c) is more likely to be classified as B