Decision functions

(Continuation)

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NPTEL – Electronics & Communication Engineering – Pattern Recognition

1. ANSWERS

- 1. A **hyperplane** is a geometrical concept and is defined for an n dimensional space as a flat subset with dimension n-1 which separates the space into two half spaces.
- 2. If $C_1, C_2, C_3, \ldots, C_m$ be m pattern classes in R^n . If a surface d(x) = 0 $x \in R^n$ separates C_i and remaining C_i $j \neq i$

$$d(x) > 0 x \in C_i$$

$$d(x) < 0 \; x \varepsilon C_j \; j \neq i$$

then d(x) is called a decision function.