

Department of Computer Science and Engineering

**Course Code :** CSE-452

**Course Title :** Neural Network & Fuzzy Logic Lab.

**Report No :** 02

**Report Name :** Union and Intersection of Fuzzy sets.

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**REMARKS**

**Source Code:**

#include<stdio.h>

main()

{

float a[20],b[20],c[20];

int n,i;

printf("Total elements: ");

scanf("%d",&n);

printf("\n\nElements for Set 1:\n");

for(i=0; i<n; i++)

{

printf("Element %d: ",i+1);

scanf("%f",&a[i]);

}

printf("\n\nElements for Set 2:\n");

for(i=0; i<n; i++)

{

printf("Element %d: ",i+1);

scanf("%f",&b[i]);

}

printf("\nA={");

for(i=0; i<n; i++)

{

printf("X%d %f}",i+1,a[i]);

}

printf("\nA={");

for(i=0; i<n; i++)

{

printf("X%d %f}",i+1,b[i]);

}

for(i=0; i<n; i++)

{

if(a[i]<b[i])

c[i]=b[i];

else

c[i]=a[i];

}

printf("\n\nUnion of A and B=\{");

for(i=0; i<n; i++)

{

printf("(X%d, %.2f)",i+1,c[i]);

if(i==n-1)

continue;

else

printf(", ");

}

printf("}\n\n");

for(i=0; i<n; i++)

{

if(a[i]>b[i])

c[i]=b[i];

else

c[i]=a[i];

}

printf("\n\nIntersection of A and B=\{");

for(i=0; i<n; i++)

{

printf("(X%d, %.2f)",i+1,c[i]);

if(i==n-1)

continue;

else

printf(", ");

}

printf("}\n\n");

return 0;

}

**Input:**

Total elements: 2

Elements for Set 1:

Element 1: .6

Element 2: .5

Elements for Set 2:

Element 1: .6

Element 2: .2

**Output:**

A={(X1 0.6),(X2 0.5)}

B={(X1 0.6),(X2 0.2)}

Union of A and B={(X1, 0.60), (X2, 0.50)}

Intersection of A and B={(X1, 0.60), (X2, 0.20)}