**SUMARGO, JAKE P.**

**PROBLEM:**

L = { W Є {a,b}\* | w contains at most 5 occurences of b.

**DIAGRAM**

a a a a a a

b b b b b

b

a,b

**TRANSISTION TABLE**

ᴕ1 a b **FORMAL DEFINITION:**

L = { W Є {a,b}\* = {q0,q1,q2,q3,q4,q5,q6},{a,b}, ᴕ1,{0},{6}}

q0 q0 q1

q1 q1 q2

q2 q2 q3

q3 q3 q4

q4 q4 q5

q5 q5 q6

q6 q6 q6

#include<cstring>

#include<iostream>

using namespace std;

int main (int argc, char \* argv[])

{

int x,z;

char str[100];

cout<<"Input:";

gets(str);

x=0;

z=0;

cout<<"Output:";

while(str[x]!='\0')

{

if(str[x]=='b')

{

z++;

}

x++;

}

if(z<6)

{

cout<<"Accepted";

}

else

{

cout<<"Not";

}

cout<<endl;

}