1. TO WRITE A C PROAGRAM TO SIMULATE DFA?

PROAGRAM:-

#include<stdio.h>

#include<string.h> #define max 20

int main()

{

int trans\_table[4][2]={{1,3},{1,2},{1,2},{3,3}};

int final\_state=2,i; int present\_state=0; int next\_state=0; int invalid=0; char input\_string[max]; printf("Enter a string:"); scanf("%s",input\_string); int l=strlen(input\_string);

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

{

if(input\_string[i]=='a') next\_state=trans\_table[present\_state][0]; else if(input\_string[i]=='b') next\_state=trans\_table[present\_state][1];

else

invalid=l;

present\_state=next\_state;

}

if(invalid==l)

{

printf("Invalid input");

}

else if(present\_state==final\_state)

printf("Accept\n");

else

printf("Don't Accept\n");

}

OUTPUT

