1. .Write a C program to check whether a given string belongs to the language defined by a Context Free Grammar (CFG)

S → 0S1 | ε

PROGRAM:

#include<stdio.h>

#include<ctype.h>

#include<string.h>

int main(){

char str[15];

int l,i,c0=0,c1=0;

printf("\n\tTHE GRAMMER PRODUCTIONS\n\tS --> 0S1 | EPS");

printf("\n\nEnter the string:");

scanf("%s",str);

l=strlen(str);

i=0;

while(str[i]=='0'){

c0++;

i++;

}

while(str[i]=='1'){

c1++;

i++;

}

if(c0==c1)

printf("\nVALID INPUT");

else

printf("\nINVALID INPUT");

}

OUTPUT:

