CHECKING WHETHER STRING BELONGS TO THE GRAMMAR :

```c
#include<stdio.h>
#include<string.h>
int main()
{
char s[100];
int i,flag,flag1,flag2;
int l;
printf("enter a string to check: ");
scanf("%s",s);
l=strlen(s);
flag=1;
for(i=0;i<l;i++)
{
if(s[i]!='0' && s[i]!='1')
{
flag=0;
}
}
if(flag!=1)
printf("string is not valid\n");
if(flag==1)
{
 if(l%2!=0)
 {
 printf("the string doesnot satisfy the condition 0^n1^n\n");
 printf("string not accepted\n");
}
else
{
flag1=1;
for(i=0;i<(l/2);i++)
{
if(s[i]!='0')
{
flag1=0;
}
}
flag2=1;
for(i=l/2;i<l;i++)
{
```

```c
if(s[i]!='1')
{
flag2=0;
}
}
if(flag1==1 && flag2==1)
{
printf("the string satisfies the condition 0^n1^n\n");
printf("string accepted\n");
}
else
{
 printf("the string does not satisfies the condition 0^n1^n\n");
printf("string not accepted\n");
}
}
}
}
```