**SSN COLLEGE OF ENGINEERING**

**DEPARTMENT OF COMPUTER SCIENCE**

**UCS1602 – COMPILER DESIGN**

DATE: 06-02-2021

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CLASS AND SEC : CSE-B

## ASSIGNMENT – 4: RECURSIVE DESCENT PARSER

PROGRAM:

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

char input[20];

int length=0;

void E();

void T();

void Edash();

void Tdash();

void F();

void main(){

    int strlength;

    printf("\nEnter the Input String:");

    scanf("%s",input);

    strlength=strlen(input);

    E();

    if(strlength==length)

        printf("\nThe given string is accepted");

    else

        printf("\nError in the given string");

}

void E(){

    printf("\nE()");

    T();

    Edash();

    return;

}

void T(){

    printf("\nT()");

    F();

    Tdash();

    return;

}

void Edash(){

    printf("\nEdash()");

    if(input[length]=='+'){

        length++;

        T();

        Edash();

    }

    return;

}

void Tdash(){

    printf("\nTdash()");

    if(input[length]=='\*'){

        length++;

        F();

        Tdash();

    }

    return;

}

void F(){

    printf("\nF()");

    if((input[length]=='i') && (input[length+1]=='d')){

        length+=2;

    }

    else if(input[length]=='('){

        length++;

        E();

        if(input[length]==')'){

            length++;

            return;

        }

    else{

            printf("\nError in the given string");

            exit(1);

        }

    }

    return;

}

OUTPUT:

