**5.Design, develop and implement a C/Java program to generate the machine code using**

***Triples* for the statement *A = -B \* (C +D)* whose intermediate code in three-address**

**form:**

***T1 = -B***

***T2 = C + D***

***T3 = T1 + T2***

***A = T3***

#include<stdio.h>

#include<stdlib.h>

#include<ctype.h>

char op[2],arg1[5],arg2[5],result[5];

void main()

{

FILE \*fp1,\*fp2;

fp1=fopen("inpu

t.txt","r");

fp2=fopen("outp

ut.txt","w");

while(!feof(fp1))

{

fscanf(fp1,"%s%s%s%s",result,arg1,op,arg2);

if(strcmp(op,"+")==0)

{

fprintf(fp2,"\nMOV R0,%s",arg1);

fprintf(fp2,"\nADD R0,%s",arg2);

fprintf(fp2,"\nMOV %s,R0",result);

}

if(strcmp(op,"\*")==0)

{

fprintf(fp2,"\nMOV R0,%s",arg1);

fprintf(fp2,"\nMUL R0,%s",arg2);

fprintf(fp2,"\nMOV %s,R0",result);

}

if(strcmp(op,"-")==0)

{

fprintf(fp2,"\nMOV R0,%s",arg1);

fprintf(fp2,"\nSUB R0,%s",arg2);

fprintf(fp2,"\nMOV %s,R0",result);

}

if(strcmp(op,"/")==0)

{

fprintf(fp2,"\nMOV R0,%s",arg1);

fprintf(fp2,"\nDIV R0,%s",arg2);

fprintf(fp2,"\nMOV %s,R0",result);

}

if(strcmp(op,"=")==0)

{

fprintf(fp2,"\nMOV R0,%s",arg1);

fprintf(fp2,"\nMOV %s,R0",result);

}

}

fclose(fp1);

fclose(fp2);

getch();

}

**Output:**

