Experiment: 2(a)

SIMPLE CALCULATOR

**Algorithm:**

Step 1: Start

Step 2: Declare and define functions add, subtract, multiply and divide   
Step 3: Declare variables num1, num2, ans and c.

Step 4: Read values num1, num2 and arithmetic operation.

Step 5: Read arithmetic operation.  
 Case ‘+’ : call “add” function which returns ` (ans=num1+num2)

Case ‘-’ : call “subtract” function which returns (ans=num1-` ` num2)

Case ‘\*’ : call “multiply” function which returns ` (ans=num1\*num2)

Case ‘/’ – call “divide” function which return ` (ans=num1/num2)

Step 6: Display result

Step 7: Stop

**Code:-**

#include<stdio.h>

#include<math.h>

void display(float s)

{

printf("Ans: %.2f \n",s);

}

float add(int x,int y)

{

return x+y;

}

float subtract(int x, int y)

{

return x-y;

}

float multiply(int x,int y)

{

return x\*y;

}

float divide(int x,int y)

{

if(y!=0) return (float)x/y;

else return 0.0;

}

float power(int x,int y)

{

return pow(x,y);

}

float squareroot(int x,int y)

{

return sqrt(x);

}

int main()

{

int a,b;

float ans;

unsigned char c;

while(1)

{

printf("\nEnter the two numbers separating with single space or Press E to escape: ");

scanf("%d %d", &a,&b);

printf("Enter the arithmatic operation (+,-,\*,/,^,s) : ");

scanf(" %c",&c);

switch(c)

{

case '+': ans=add(a,b);

break;

case '-': ans=subtract(a,b);

break;

case '\*': ans=multiply(a,b);

break;

case '/': ans=divide(a,b);

break;

case '^': ans=power(a,b);

break;

case 's': ans=squareroot(a,b);

break;

case 'e': exit(0);

default: printf("Invalid Operation\n");

}

display(ans);

}

return 0;

}

**OUTPUT:-**

