

NAME FAYYAZ Ahmad

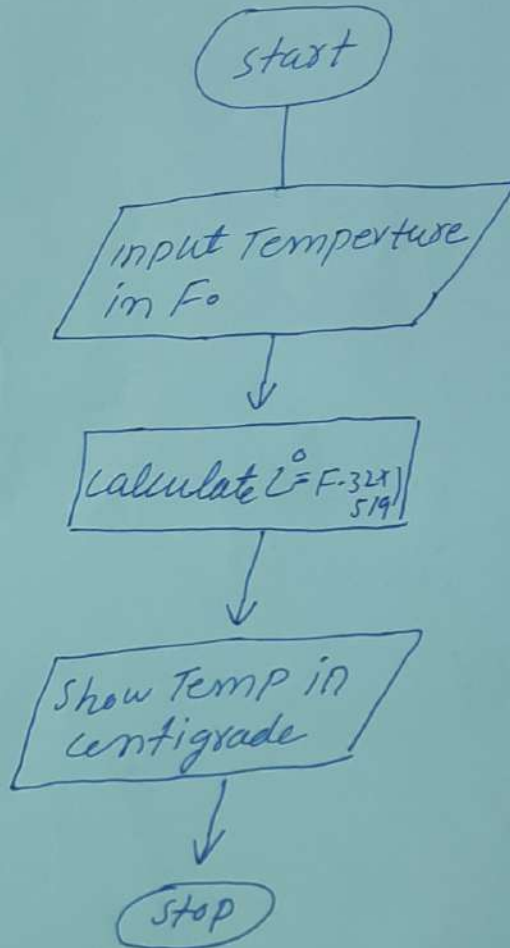
ID 13460

program BS Tele com.

Subject programming fundamental

(2)
Q1b: Draw the Flow chart to prompt the user for a temperature in degree Celsius.

Ans:



```
#include <iostream>
using namespace std;
int main()
{
    float C, f;
    cout << "Enter Temp in F: ";
    cin >> f;
```

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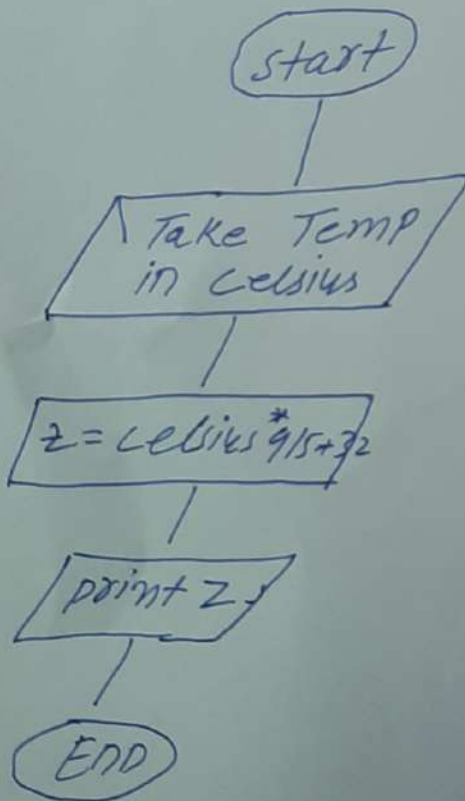
$$C = (F - 32) * 5.0 / 9.0;$$

```
cout << "Temperature in centigrade = " << C;  
return 0;
```

```
}
```

- ② then convert the temperature in degree Fahrenheit (F) using the following formula and display temperature in Fahrenheit (F) on monitor.

$$F = \frac{9}{5} \times C + 32$$



(4)

program to convert a temperature in Celsius to Fahrenheit in C++.

```
#include <iostream>
#include <conio.h>
using namespace std;
int main()
{
    float C;
    float F;
    cout << "input temperature in Celsius is = ";
    cin >> C;

    F = C * 9/5 + 32
    cout << "Temperature in Fahrenheit is = " << F;
    getch();
}
```

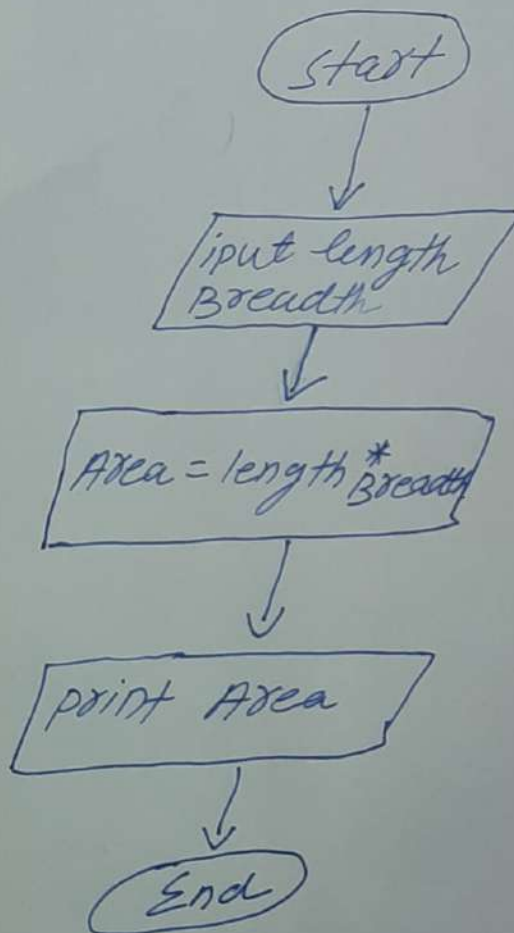
(5)

Q2Q Draw a flow chart and write a C++ program to find the Area and perimeter of a rectangle using the below formula

Area of rectangle: $\text{height} \times \text{width}$

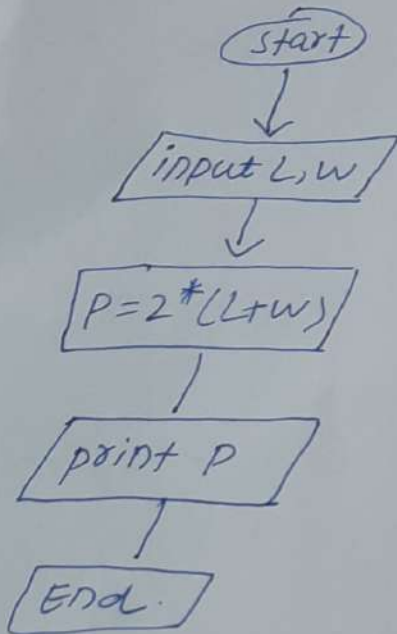
perimeter of rectangle $2 \times (\text{height} + \text{width})$

Solution: flow chart to find Area of a rectangle.



⑥

Flow chart to Find perimeter of the rectangle



⑦

C++ program to find the Area and perimeter of a rectangle using the below formula

Area of rectangle: height \times width

perimeter of rectangle $2 \times (\text{height} + \text{width})$

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{  
    int width, length, area, peri;
```

```
    cout << "\n\n Find the Area and perimeter  
of rectangle: \n";
```

```
    cout << "input the length of the rectangle: ";
```

```
    cin >> length
```

```
    cout << "input the width of the rectangle: ";
```

```
    cin >> width
```

```
    area = (length  $\times$  width)
```

```
    peri = 2  $\times$  (length + width)
```

```
    cout << " The area of the rectangle is: " << area << endl;
```

```
    cout << " The perimeter of the rectangle is " << peri << endl;
```

```
    cout << endl;
```

```
    return 0;
```

⑧
2b.. Draw the flow chart and write a C++ program to obtain the radius of a circle then calculate the area and perimeter using the below formula

$$\text{Area of circle} = \pi \times R \times R$$

$$\text{Circumference formula } C = 2 \times \pi \times R$$

$$\text{Where } \pi = 3.14.$$

Sol #include <iostream>

int main()

{
 float radius, area

 std::cout << "Enter the radius of circle: ";

 std::cin >> radius;

 area = 3.14 * radius * radius;

 std::cout << "Area of circle with radius "

 << radius << " is " << area;

}

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```
#include <stdio.h>
int main() {
    int radius
    float area, perimeter;
    radius = 6;
    perimeter = 2 * 3.14 * radius;
    printf("Perimeter of the circle = %f inches\n", perimeter);
    area = 3.14 * radius * radius;
    printf("Area of the circle = %f square inches\n", area);
    return 0;
}
```

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```
#include <stdio.h>
int main()
```

```
int radius;
float area, perimeter;
radius = 6;
perimeter = 2 * 3.14 * radius;
printf("perimeter of the circle
= %f inches\n", perimeter);
area = 3.14 * radius * radius;
printf("Area of the circle = %f square inches\n", area);
return 0;
```

End

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Q39: Discuss the different type of programming languages:

Ans: There are the following type of programming languages:

① procedural programming language:

The procedural programming language is used to execute a sequence of statements which leads to a result. Typically this type of programming language uses multiply variables, heavy loops and other elements.

② Functional programming language:

Functional programming language typically uses stored data.

③ object oriented programming language:

This programming language views the world as a group of objects that have internal data and external accessing part of that data.

⑧ Scripting programming language

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These programming languages are often procedural and may comprise object oriented language.

⑨ Logic programming language

These types of languages let programmers make declarative statements and then allow the machine to reason about the consequences of those statements.

etc.

⑩ C++, C, Pascal language, Java, Fortran,

3b: How many translators are there to translate higher level language to machine language? Discuss. (13)

Ans: There are three translators which are used to translate higher level language to machine language.

① Compiler:

A compiler is a translator used to convert high-level programming to machine or low-level programming language.

② Interpreter:

Just like compiler is a translator used to convert high-level programming languages to low level programming language it converts the program one at a time and reports errors detected at once.

③ Assembler..

An Assembler is a translator used to translate assembly language to machine language, it is like a compiler for the assembly language but interactive like an interpreter.