

INU

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Program (Bs Telecom)

Course Programming Fundamental

Exam mid

Submitted to

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(Q1)

(a) Draw the flow chart to get two integer items from keyboard and then display to the screen their sum, difference and product.

Read x, y

compute sum as $x + y$

compute difference as $x - y$

compute product (P) as $x \cdot y$

write (display) the sum, difference and product

Flow Chart

Start

Read x, y

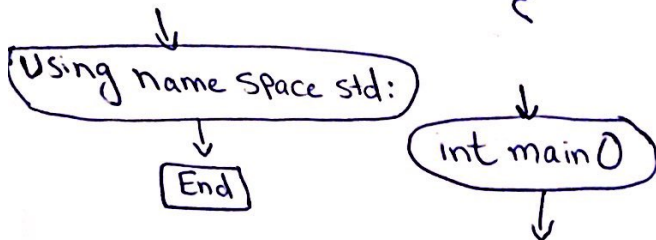
$S = x + y$
 $D = x - y$
 $P = x \cdot y$

Write S, D, P

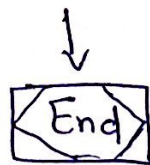
Stop

Q1) Draw the flow chart to
(b) print temperature.

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



```
float fsh, cel;  
cout << "\n\n Convert temperature in celsius to fahrenheit: \n";  
cout << " ----- \n";  
cout << "input the temperature in celsius :";  
cin >> cel;  
fsh = (cel * 9.0) / 5.0 + 32;  
cout << " The Temperature in Celsius : " << cel << endl;  
cout << " The Temperature in Fahrenheit: " << fsh << endl;  
cout << endl;  
return 0;
```



Q2) (a)

Draw the flow chart and write C++ program

using namespace std

int main()

END

```
int width, length, area, peri;
cout << "\n Find the Area and Parameter of -
          Rectangle : \n"
cout << " _ _ _ _ _ \n";
cout << " Input the length of the rectangle"
cin >> length;
cout << " length the width of the rectangle"
cin >> width;
area = (length * width);
peri = 2 * (length + width);
cout << " The area of rectangle is " << area << endl;
cout << " The perimeter of the rectangle is
          " << peri << endl;
cout << endl;
return 0;
```

END

(Q3)

(a) Discuss different types of programming languages.

(Ans) A programming language is a notation designed to connect instructions to a machine or a computer. Programming languages are mainly used to control the performance of a machine or to express algorithms.

Types

Different types of programming languages are

(1) Procedural Programming Language

The procedural programming language is used to execute a sequence of statements which lead to a result. Typically.

(2) Functional Programming Language

Functional programming language typically used store data. frequently avoiding loops in favor of recursive function.

(3) Object oriented programming:-

The programming language views the world group of object that have internal data and external accessing parts of the data.

4) Scripting Programming Language.

These programming language are often procedural and may comprise object oriented language elements but they fall into their own category as they are normally not built block.

5) Logic Programming Language.

These types of languages let programmers make declarative statements and then allow the machine to reason about the consequence of those statement in a series.

(Q3) How many translators are there to translate higher level language to machine language Discuss?

(Ans) High level languages are for scientific applications

Fortran and C languages are used. on the other hand COBOL is used for business applications.

⇒ Although assembly language greatly improved programming efficiency they still required programmers to concentrate on the hardware.

⇒ Assembly and machine level languages require deep knowledge of computer hardware whereas in higher language you have to know only the instruction in English.

⇒ Higher level languages that use English and mathematical symbols like +, -, % etc its program construction.

⇒ Any higher level language has to be converted into machine for the computer to understand.

* Machine language :-

⇒ Machine language is the only language that is directly understood by the computer. It does not need any translator or program.

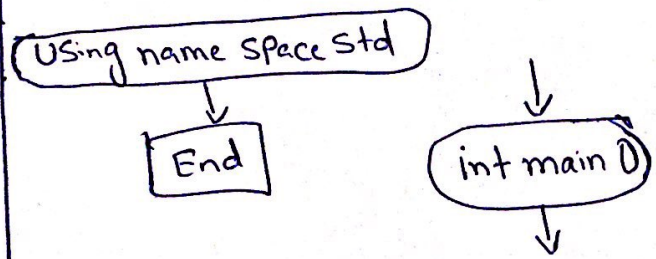
⇒ The only advantage is that program of machine language is run very fast

⇒ There is nothing below machine language - only hardware

⇒ Impossible for humans to react consists of only 0's and 1's
- 0001000111110000 -

⇒ Each computer has its own machine language.

(Q2) b Draw the flowchart and write C++ program - .



```
float radius, area, Circum;  
cout << "\n\n Find the area and Circumference of  
any Circle : \n";  
cout << "----- \n";  
cout << " Input the radius (1/2 of diameter) of Circle:";  
cin >> radius  
Circum = 2 * PI * radius;  
area = PI * (radius * radius);  
cout << " The area of the circle is : "<< area << endl;  
cout << " The circumference of circle is : " << Circum << endl;  
cout << endl;  
return 0;
```

