ID# 16242

Program: B.Tech Civil

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Subject: Computer Programming

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Q1). (A) Design an algorithm and draw a flowchart that will read the two sides of a rectangle

and calculate its area?

(Ans). Write an algorithm and draw a flowchart that will read the two sides of a rectangle and calculate its area.

- Pseudo code
    I. Input the width (W) and Length (L) of a rectangle,
    II. Calculate the area (A) by multiplying L with W,
    III. Print A

- Algorithm   START
  Step 1: Input W,L   INPUT W,L
  Step 2: A ← L x W,   A ← L x W,
  Step 3: Print A.   PRINT A
                                                         STOP

Q1) B. Name different types of errors which can occur during the execution of a program?

(Ans). During the execution of a program, the errors that may occur are;

- Syntax errors: Error occur when program contain grammatical errors.
- Run time errors: These error occur while the program is running.
- Logical errors: Errors such as calculation mistakes etc.

Q2) A. Design an algorithm that reads two values, determines the largest value and prints the

largest value with an identifying message.

(Ans).   Algorithm

Step 1: Input VALUE1, VALUE2

Step 2: if (VALUE1 > VALUE2) then

MAX ← VALUE1

Step 3: Print "The largest value is", MAX

- **Pseudo code**
    o Input Variable 1 and Variable 2,
    o Check if Variable 1 > Variable 2,

- o Store Variable 1 in another variable 'Max'.
- **Else**
  - o Store Variable 2 in another variable 'Max',
  - o Print Max.

For Example

```
#include <iostrem>

Using name space stdi

Int main ( )

        {

            Int a,b ;

            Cout <<"Enter First no"<<end;

            Cin >>a;

            Cout <<"Enter second no"<<end;

            Cin >> b;

            If (a>b)

                {

                  Cout <<"The greater no is"<<a;

                }

            else

                {

                Cout <<"The grater no is'<<b;

                }

        }
```

Q2. B. What do you understand by the term "Maintain and update the Program".

(Ans). Maintain and Update the program.

Maintenance and update are the modification of a software product after delivery to correct faults, to improve performance or other attributes or to adapt the product to a modified environment.

Q3) Differentiate between the following.

(Ans). (a) Bug & Debug

Bugs are errors in code of your program that make your program function improperly. Fixing bugs is called debugging. Debugging is generally a feature in major IDEs like Visual Studio, NetBeans etc. Bugs are usually seen in video games and in development apps and beta versions of these apps.

(b) Syntex error & Logical error

There are generally two types of errors: syntax errors and logic errors. Syntax errors occur when a program does not conform to the grammar of a programming language, and the compiler cannot compile the source file. Logic errors occur when a program does not do what the programmer expects it to do.

(c) Compiler & Assembler

Compiler converts the source code written by the programmer to a machine level language. Assembler converts the assembly code into the machine code. ... The output of compiler is a mnemonic version of machine code. The output of assembler is binary code. C, C++, Java, and C# are examples of compiled languages.

(d) System Software & Application Software

System software is used for operating computer hardware. On other hand application software is used by user to perform specific task. System software are installed on the computer when operating system is installed. On other hand Application software are installed according to user's requirements.

(e) Low level language & High level language

High-Level Languages	Low-Level Languages
BASIC, Perl, Pascal, COBOL, Ruby etc	Machine language and
Are example or high level language.	and Assembly language
	are Low-Level Languages.

Thank You…….