Name:→ Naseer-Muhammad

I.D:→ 7885

Instructor:→ Engr Ashraf Ali

Department:→ civil-engineering

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Q1 a):→ Design an algorithm and draw a flow-chart that will read the two sides of a rectangle?

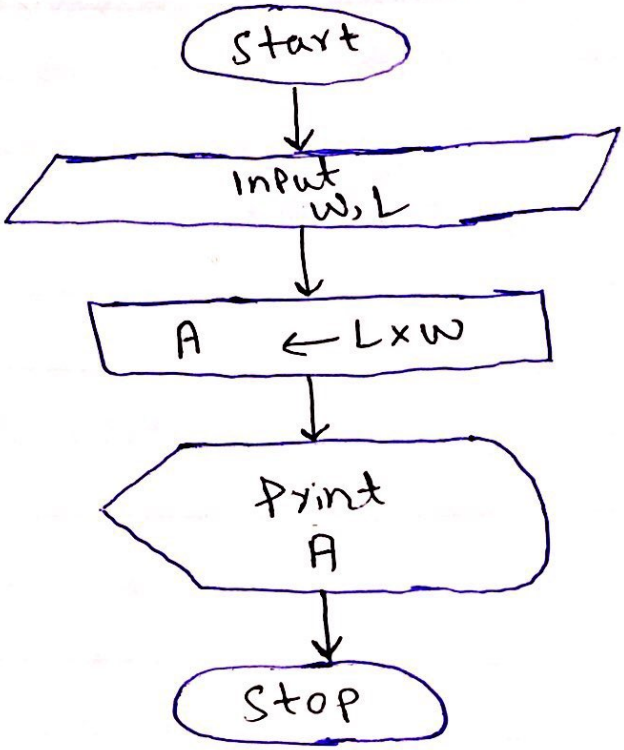
Ans:→ (a) Algorithm:→

Step 1: Input W, L.

Step 2: A□L x W,

Step 3: Print A.

*) :→ Flow charts :→



Q 1) b) :→ Name different types of error which can occur during the execution of a program?

Ans (b) :→ Different types of error that can occur during the execution of program is given below.

1) :→ Syntax error 2) :→ Run time error.

3) :→ Linker error 4) :→ Logical error.

5) :→ Semantic error.

1):→ Syntax Error:→

→In computer science, a syntax error is an error in the syntax of a sequence of characters or token that is intended to be written in compile-time. A program will not compile until all syntax error are corrected.

→ A syntax error may also occur when an invalid equation is entered into a calculator.

2):→ Runtime error:→

An error that occurs during the execution of program. Runtime error indicate bugs in the program or problems that the designers had anticipated but could do nothing about.

3):→ linker error:→

→It means that your code compiles fine, but that some function or library that is need cannot be found.

4):→ Logical error:→

→A logical error is a mistake in a program soure code that results in incorrect or unexpected behavior.

5):→ Semantic error:→

→ A semantic error occurs when a statement is syntactically valid, but does not do what the programmer intended.

Q2) a):→ Why we use iostream.h and conio.h in C++ programming?

Ans a):→ <iostream.h> :→

→ This is the name of the library file for all input ouput streams. Your program will almost certainly want to send stuff to the screen and read things from the keybord.

→ <iostream.h> is the name of the files in which has code to do that work for you.

⇒ #include <iostream.h> is used in C++ in order to include the header file "iostream" in the program. iostream is used to invoke commonly used function for example:→

→ Cout → Cin in a C++ iostream stand for input output stream.

*):→ <conio.h> :→

→ #Include <conio.h> is used in both C and C++. It is used to include header file "conio" in a program it is used to invoke function related to the output of the program.

for example:→ (i) clrscr();

(ii):→ getch();

→ conio stand for console input.

Q2) b):→ what do you understand by the term "maintain and update the program".

Ans:→ (b) maintain and update the program, mantain and update are the modification of a software product after delivery to correct fault, to improve performance and other attribute

→ maintain mean removing fault from the program.

→ update mean adding additional things in the program.

Q3:→ Differentaite between the following.

a):→ Bug and Debug.

b):→ Syntax and logical error.

c):→ compiler and Asembler.

d):→ System software and application software.

e):→ low level language and high level language.

Ans[3]:→

Bug	Debug
→ Bug are error 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, CLion, Pycharm etc.
	→ Debugging is the process of detecting and removing of existing and potential errors in a software code that can cause it to behave unexpectedly or crash.

Syntax Error.

→ Syntax error are mistake such as misspelled keywords, a missing closing parenthesis or missing character - bracket etc.

→ All famous IDEs such as Eclipse. Net beaus and visual studio detect these errors.

Logic Error.

→ logica error are those error that prevent program from doing what you expected it to do.

→ with logical error you get no warning at all, These are the most difficult error to detect.

Compiler

→ compiler translates high level programing language code to machine level code.

→ Soure code in high level programming language.

→ compiler checks and convert the complete code at one time.

Assembler

→ Assembler convert the assembly level language to machine level code.

→ Assembly level code as input.

→ Assembler gerenally does not convert complete code at one time.

System software	Application software
→ Computer software designed to provide a platform to other software.	→ software Provide designed to perform a group of co-ordinated functions, tasks or activities.
→ Manage resources and help to run hardware and application software.	→ Perform a specific task according to their type.
→ Runs when the system starts and runs till the end.	→ Runs when the user required.
→ Devoloped using languges like C, C++, assembly	→ Devolped using Language java, C, C++ visual Basic
→ Essential for the propos functioning of a system.	→ Not extreamly important for the functionly of the system.

High level language	Low level language.
→ High level language are easy to learn.	→ Low level language are difficult to learn.
→ High level language are near to human language.	→ Low level languages are far from human language.
→ Translator is required	→ No need of translator
→ program in high level language are slow in execution.	→ Program in low level language are fast in execaution.
→ Program in high level languages are easy to modify.	→ Program in low level language are difficult to modify.