

Name :- Osama Asghar Khan

ID # 7820

Section: A

Subject:

Introduction to Computer
Programming

Question No. 1

Part (a):

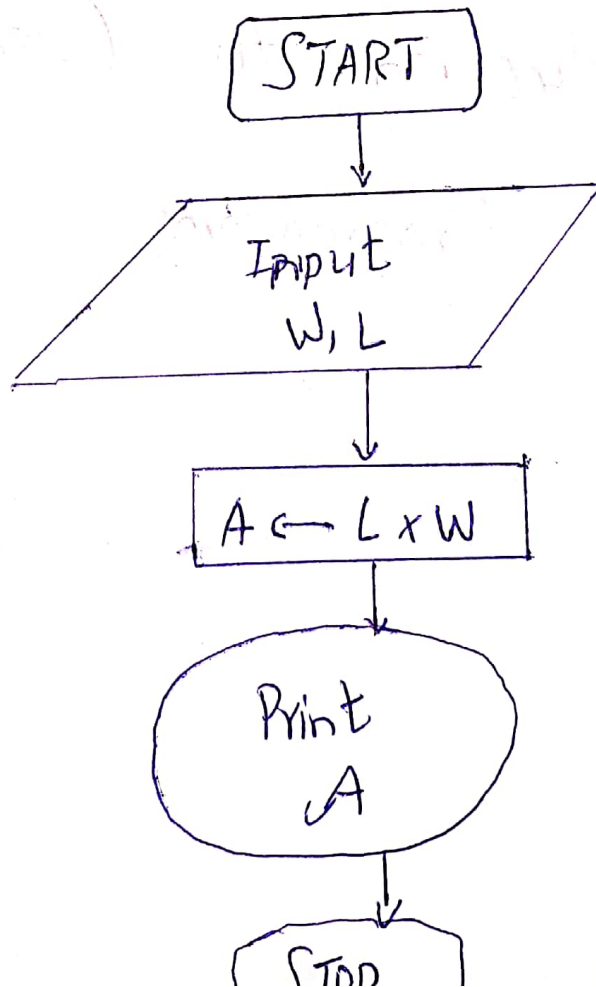
Algorithm;

Step 1: Input W, L

Step 2: $A \leftarrow L \times W$

Step 3: Print A

FLOWCHART



Question No.1

Part (b):

Answer:

The different types of errors that can occur during the execution of a program are given below:

1, Syntax Error:

A syntax error is an error in the syntax of a sequence of characters that is intended to be written in compile-time.

2, Run-time Error:

A run time error is a software or hardware problem that prevents the Internet Explorer from working correctly.

3, Linker Error:

If you receive a linker error, it means that your code compiles fine, but that some function that is needed cannot be found.

14) Logical Error:

In computer programming, a logical error is a bug in a program that causes it to operate incorrectly.

15) Semantic Error:

Writing invalid program logic that produces incorrect results when the instructions are executed.

Question No. 2

Part (a):

Answer:

Both the `iostream.h` and `conio.h` are called the pre-processor statement of the program.

\Rightarrow `#include <iostream.h>` is used in C++ in order to include the header file in the program.

"`iostream.h`" is used to invoke commonly used

function.

⇒ #include <conio.h> is used in the both C & 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.

Question No. 2

part b/:

Answer:

Maintain & Update the program:

Maintenance & update are the modification of a software product after delivery to correct faults, to improve performance or other attribute or to adapt the product to a modified environment. It also deals with updating the software according to changes in user requirements.

Question No. 3

Part (b):

Syntax Error:

A Syntax error is when a computer programmer does not obey the grammar rules of the programming language being used.

Logical Error:

Logical errors are the mistakes in the design of a program that cause the program to behave unexpected way.

Part (c):

Compiler & Assembler:

Compiler:

Compiler is used to translate a high level code & to create an executable program. Compiler checks the error in the program & reports them.

Assembler:

Assembler is used to translate an assembly level code to machine readable code. Assembler too checks the correctness of each instruction & reports the diagnosis report.

part (d):

System Software:

- ⇒ A computer software designed to provide a platform to other software.
- ⇒ Manages resources & helps to run hardware & application software.
- ⇒ Runs when the system starts & runs till the end.

Application Software:

- ⇒ Software designed to perform a group of coordinated functions, tasks for the benefits of the user.

⇒ Performs a specific task according to their type.

⇒ Runs when the user requires.

Part (c):

High-level Language:

⇒ High-level languages are easy to learn.

⇒ Translator is required.

⇒ Programs in high-level language are slow in execution.

Low-level Language:

⇒ Low-level languages are difficult to learn.

⇒ No translator is needed.

⇒ Programs in low-level language are fast in execution.

Q3

Part (a):

Bug and Debug:

A bug is a coding error in a computer program while the process of finding bugs before program is called debugging.

