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SUBJECT :> C++ intro to prog.

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Q.1 A

design an algorithm and draw a flowchart that will read the two sides of rectangular- and calculate its area.

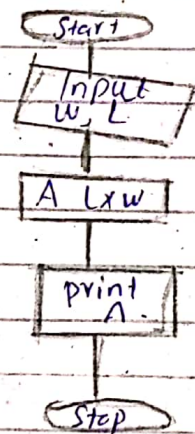
PSEUDOCODE :-

- Input the width (W) and length (L) of a rectangle
- calculate the area (A) by multiplying L with W.
- print A.

EXAMPLE ..

Algorithm

- Step 1: Input W, L
- Step 2: $A = L \times W$
- Step 3: print A



"B"

Name different types of errors which one can occur during the execution of program?

ANSWER:-

there are three kinds of errors

1. Syntax errors.
2. runtime errors.
3. logic errors.

these are errors where the compiler finds something wrong with program and can't even try to execute

EXAMPLE:

may have incorrect punctuation or may be trying to use a variable that hasn't been declared.

Q 2 "A"

Why we used `iostream` and `conio.h` in C++ programming.

ANSWER,

IOSTREAM :-

provides basic input and output services for C++ programs. `iostream` uses the objects `cin`, `cout`, `cerr` and `cerr` for sending data to and from the standard streams input output error (unbuffered) and log (buffered) respectively.

CONIO.H

is header file used mostly by MS DO compiler to provide console input output :- it is not part of the C standard library also C, nor is it defined by POSIX. This header declares several useful library functions for performing console input and output from a perform console input. Most C compilers that target DOS or Win 32 have this header and supply the associated library function in the default C library. Most C compilers that target

unix and linux do not have this header and do not supply the library functions. Some embedded system or ccrc use a conio compatible library.

The library function declared by conio.h very somewhat from compiler to compiler. As originally implemented lattice C the various function mapped directly to the first few dos INT 21H function.

with Borland's turbo C did not use the dos API but instead accessed video ram directly for output and used BIOS

inter put calls. The library also has additional functional inspired from the successful turbo pascal one.

compilers that target non-DOS operating system such a linux or os/2, provides similar solution, the unix related courses library is very common here. Another example is SYNCTERM's COILIB.

"B"

What do you understand by the term, maintain and update the program.

ANSWER.-

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 modified environment. It deals with updating the Software according to changes in user requirements.

Q 3

difference between the following

"A"

Bug & Debug.

ANSWER:-

Debug is (computer science) to search for and eliminate malfunctioning elements or errors in something, especially a computer program or machinery while bug is (informal transitive) to annoy.

"B"

Syntax error & logical error.

ANSWER:-

The key difference between syntax error and logical error is that the syntax error occurs due to an error in the syntax of a sequence of characters or tokens that is intended to be written in a particular programming language. While logical error is an error that occurs due to the program algorithm.

or

"C" Compiler & Assembler

ANSWER:-

Compiler :-

Compiler is used to translate an high level programming language. Code machine level code & to create an executable program. Compiler checks the error in the program and reports them.

All errors are to be removed otherwise code will not be compiled and execute.

ASSEMBLER :-

Assembler is used to translate an assembly level code to machine readable code.

Assembler too checks the correctness of each instruction and reports the diagnosis report.

System SOFTWARE & Application Software

ANSWER.

System SOFTWARE	Application Software.
Computer Software, designed to provide a platform to other Software	Software designed to perform a group of coordinated function, tasks or activities for the benefit of the user.
Manages resource & helps to run hardware and application software	performs a specific task according to their type.
Runs when the system starts and runs till the end	Runs when the user requires.
Developed using language like C, C++ Assembly	Developed using language like Java, C, C++ visual Basic
Essential For Proper functioning of a system	Not extremely important for the functioning of the system.
Ex, operating system language processors & device driver	Exp. word processor, spreadsheet, presentation software, web browser, graphic software.

"E"

low level language & high level language ?

ANSWER:-

High level language

low level language

- it is programmer friendly language. High level language is less

- language is less memory is efficient

- it is easy to understand

- Simple to debug

- Simple to maintain

- it is portable

- it can run on any platform

- it needs compiler or interpreter for translation

- it is a machine friendly language.

- low level language is high memory efficient.

- tough to understand

- Complex to debug.

- Complex to maintain

- it is non-portable.

- depended on machine.

- it needs assembler for translation.