Computer Science - ICS Part 2 Computer Science Chapter 8 Short Questions Preparation

Q1. Differentiate between Compiler and Interpreter.

Ans 1: Compiler : Compiler translate the source program into an object program with .obj extension . A Compiler is a special program that processes statements written in a particular programming language and turns them into machine language or "code" that a computer processor uses.

Ans 2: Interoperate : An Interpreter is a computer program that directly executes I.e performs, instructions written in a programming or scripting language, without requiring them previously to have been compiled into a machine language program.

Q2. What is define directives?

Ans 1: The define create a macro, which is the association of an identifier or parameterized identifier with a token string, after the macro is defined, the compiler can substitute the token string for each occurrence of the identifier in the source file.
Syntax : #define identifier token -stringopt
#define identifier (identifieropt,..., identifieropt) token-stringopt

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Q3. Name two main categories of Programming Languages.

Ans 1: There are two broad categories of programming languages

1. Low Level Languages
2. High Level Languages

Q4. Define Bug?

Ans 1: Bug : The programmer may come across errors while writing a computer program. In programming languages, theses errors are called 'Bugs" and the process of finding and removing bugs is called debugging
There are three types of bugs/Errors.

1. Syntax Error
2. RunTime Error
3. Logical Error

Q5. What is statement terminator?

Ans 1: Statement Terminator : Every statement in a C program terminates with a semicolon (;).If any of the statement is missing the statement terminator, the compiler will report it the following error message. Statement missing:

Q6. What is the difference between machine language and assembly language ?

Ans 1: Machine Language : Machine language is the native language of the computer. The computer does not need any translator to understand this language. Programs written in any other language must be converted to machine language so that the computer can understand them. Every machine language instruction consists of string of binary 0s and 1s.

Ans 2: Assembly Language : Assembly level language is a set of codes that can run directly on the computer's processor. This type of language is most appropriate in writing operating systems and maintaining desktop applications. With the assembly level language it is easier for a programmer to define commands. It is easier to understand and use as compared to machine language.

Q7. Why Source code cannot be executed directly?

Ans 1: Source code is a human readable but cannot be executed directly . To execute the program, hower the programmer must translate it into machine language ,the language that the computer understands. The first step of this translation process is usually performed by a utility called a compiler .

Q8. Define Structure programming .

Ans 1: In structured programming languages, the entire logic of the of the program is divided into number of smaller modules, where each modules, (piece of code) implements a different functionality.

Q9. How a source code is different than an object code.

Ans 1: Source Code :

- Source code is in the form of the text .
- Source code is Human Readable.
- Source code is generated by human .
- Source code is Input Given to Compiler.

Ans 2: Object Code :

- Object code is in the form of binary Numbers.
- Object code is in Machine Readable.
- Object code is generated by Compiler.
- Object code is Output of Compiler.

Q10. What is Header File?

Ans 1: Header File : Header Files contain definitions of Functions and Variables, Which is imported or used into any C++ program by using the preprocessor # include statement. Header file have an extension "h" which contains C++ function declaration and macro definition.