

## OBJECTIVES (MCQ'S) OF CHAPTER-8 IN ALL PUNJAB BOARDS 2011-2021

1. An IDE consists of:  
(A) text editor (B) compiler (C) debugger (D) all of these
2. The extension of C source program is: (3 Times)  
(A) .b (B) .c (C) .obj (D) .exe
3. Which of the following represents the preprocessor directive?  
(A) void main (void) (B) {} (C) # include <stdio.h> (D) include<std.h>
4. C statements end with:  
(A) period (B) comma (C) semi-colon (D) question mark
5. .exe file is produced by the (5 Times)  
(A) linker (B) loader (C) compiler (D) interpreter
6. Void occupy how many bytes in memory  
(A) zero (B) one (C) two (D) four
7. A programs' syntax error is detected by  
(A) Linker (B) compiler (C) loader (D) debugger
8. The lowest level of programming language is:  
(A) Assembly language (B) Java (C) Pascal (D) C++
9. \_\_\_\_\_ key is used to save a file in Turbo C++.  
(A) D1 (B) F2 (C) F5 (D) F7
10. Who developed C:  
(A) Von-Neumann (B) Al-Khuwarizmi (C) Charles Babbage (D) Dennis Ritchie
11. Turbo C++ can compile:  
(A) C programs only (B) C and C++ programs  
(C) Turbo C programs only (D) Turbo C++ programs
12. Processor directives are command for:  
(A) Microprocessor (B) Language Processor (C) C preprocessor (D) Loader
13. Header files in C contain:  
(A) Compiler commands (B) Library functions  
(C) Header information of C programs (D) Operators for files
14. Which of the following syntax is used to include header file?  
(A) #include<name of header file> (B) # include name of he header file  
(C) Both a or b (D) None of these
15. Stdio.h is part of:  
(A) comment section (B) C standard library (C) Compiler (D) main function
16. The name of header file is written between:  
(A) [ ] (B) ( ) (C) <> (D) <<>>
17. Debug is the process of  
(A) Creating bugs in program (B) Identifying and removing error  
(C) Identifying Errors (D) Removing Errors
18. Division by zero is an example of: (2 Times)  
(A) compile error (B) Run-time error (C) Logic error (D) None
19. Which of the following errors are NOT detected by compiler?  
(A) Syntax error (B) Logical error (C) both a and b (D) None

**2017**

### C-LANGUAGE

20. C-Language was developed in: (8 times)  
(a) 1962 (b) 1969 (c) 1970 (d) 1972



**C-LANGUAGE**

21. The statement written by programmer is called: (8 times)  
 (a) Source code (b) exe code (c) Syntax (d) Object code
22. Graphical representation of a program is called:  
 (a) flow chart (b) algorithm (c) Identifier (d) relationship
23. The process of converting source code into object code is known as:  
 (a) Compiling (b) Executing (c) Linking (d) Saving
24. A set of rules that must be followed by programmer to develop program is called:-  
 (a) Syntax (b) Preprocessor (c) Bug (d) Debug

**2018**

25. The output of the compiler is: (2 Times)  
 (a) library code (b) linked code (c) object code (d) source code
26. The Data type in C that can handle Fractional values is called:  
 (a) long (b) char (c) float (d) int
27. stdio stands for  
 (a) standard input output (b) simple input output  
 (c) string input output (d) start input output
28. The target code produced by the compiler is:  
 (a) object code (b) source code (c) library code (d) linked code
29. The output of the compiler is called:  
 (a) Library code (b) Source code (c) Linked code (d) Object code
30. The extension of header file is:  
 (a) .c (b) .txt (c) .hf (d) .h

**2019**

31. C is a:  
 (a) High Level language (b) Low level language  
 (c) Assembly language (d) Machine Language
32. Which of the following language provided the basis for the development of C?  
 (a) B (b) c++ (c) Pascal (d) Cobol
33. The programmer usually enters source code into a computer using:  
 (a) Compiler (b) Text editor (c) Debugger (d) Linker

**ANSWERS**

1	2	3	4	5	6	7	8	9	10
D	B	C	C	A	A	B	A	B	D
11	12	13	14	15	16	17	18	19	20
B	C	B	A	B	C	B	B	B	D
21	22	23	24	25	26	27	28	29	30
A	A	A	A	C	C	A	A	D	D
31	32	33							
A	A	B							



## SHORT QUESTIONS OF CHAPTER-8 IN ALL PUNJAB BOARDS 2011-2021

1. **Define Programming Language.**

**Ans:** A set of words and symbols that are used to write programs is called programming language. The programming language are used to write computer programs. A programming language is a means of communication between a user and computer. i.e. C++, Java etc.

2. **Who is Programmer?**

(3 Times)

**Ans:** A person who develops a computer program is called programmer. The programmer develops programs to instruct the computer how to process data and convert it into information. Programmer uses programming language or tools to write programs.

3. **Differentiate between Syntax Error and Logical Error.**

**Ans:**

Syntax Error	Logical Error
Syntax error is a type of error that occurs when an invalid statement is written in program. Syntax errors are detected by compiler. A program containing syntax errors cannot be compiled successfully. Typing 'ferr' instead of 'for' is an example of syntax error.	A type of error that occurs due to poor logic of the programmer is known as logical error. A statement with logical error is executed and may produce unexpected and wrong results in the program. Typing a wrong formula to calculate the results is an example of logic error.

4. **What do you mean by case sensitive in C-language?**

**Ans:** Case sensitivity means upper case and lower case alphabets/letter can be used for different purpose. C is a case sensitive language it can differentiate uppercase and lowercase words. All keywords are written in lowercase.

5. **Write two reasons why it would be preferable to write a program in C rather than machine language.**

**Ans:** The two reasons to write a program in C rather than machine language are as follows:

- I. C language based on English like syntax and machine language based on 0,1 it becomes very difficult to write program in machine language.
- II. C language is portable its means a program written in C language can be run on different types of computer.

**State the purpose of defining preprocessor directive.**

(5 Times)

**Ans:** Preprocessor directives are the first line of the C program. Define directives is used to declare constant that remains same during execution of the program.

7. **What is an assembler?**

**Ans:** An assembler is translating program that translates the instruction of an assembly language into machine language.

8. **Define object code.**

(7 Times)

**Ans:** The computer program in machine like language or in a low-level language is called object program or object code. An object program can be easily understandable by the computer. It runs more efficiently on the computer system.



9. Distinguish between low level and high level language. (3 Times)

Ans:

Low level	High level
low-level language is difficult. Low-level languages provide more hardware support. The programs written in low-level language are faster in execution.	High-level language is easy. High-level languages provide less hardware support.

10. Define preprocessor directive. (2 Times)

Ans: The preprocessor directives are commands that give instructions to C preprocessor. Preprocessor directives start with hash # and the keyword include or define. These directives are written at the start of program.

11. What is syntax error? Give an example.

Ans: Syntax error is a type of error that occurs when an invalid statement is written in program. Syntax errors are detected by compiler. A program containing syntax errors cannot be compiled successfully. Typing 'forr' instead of 'for' is an example of syntax error.

12. Define linking. (5 Times)

Ans: Linking is the process in which the object file produced by the compiler is linked to many other library files. The library files must be linked with the object file before execution of the program.

13. What is header file? (5 Times)

Ans: The header files contain the declarations or information of standard library functions. These functions are called in the main body of the program to perform different tasks. The extension of a header file is ".h".

14. Define the terms Bug and Debug.

Ans: An error in a computer program is known as bug. The programmer can make different errors while writing programs. The errors must be removed from the program before it can be compiled and executed. The process of finding and removing bugs from a program is called debugging.

15. What do you mean by Delimiters? (5 Times)

Ans: The statements of the program are written in curly braces. The curly brace { is called opening brace and } is called closing brace. The braces are also known as delimiters. These statements inside these braces are collectively known as the body of a program.

16. Give an example of Preprocessor Directive.

Ans: The preprocessor directives are commands that give instructions to C preprocessor. Preprocessor directives start with hash # and the keyword include or define. These directives are written at the start of program. Example are

(i) #include (ii) #define

17. Why is C known as strongly typed language?

Ans: C is strongly typed language. It means that a variable must always be declared before it can be used in a program. The compiler gives an error if an undeclared variable is used in a program.

2016

18. Define source code.

Ans: A program written in a high level language is called source code. It is also called source program. It cannot be executed by the computer directly. Language processor is required to convert it into object code.

19. Define program. (2 Times)

Ans: A well-defined set of instruction given to computer is called computer program. It is written in a programming language. Computer always follows the instructions written in the program. A person who develops the program is known as programmer.

20. Define High Level Language. (3 Times)

Ans: A type of language that is close to human language and far away from computer is called high level language. The instructions in these languages are similar to English



language such as input and print etc. Computer cannot execute high level language directly. Language processor is required to convert them to object code.

**How a source code is different than an object code?**

(3 Times)

21.

Ans:

Object code	Source code
The computer program in machine like language or in a low-level language is called object program or object code. An object program can be easily understandable by the computer. It runs more efficiently on the computer system.	A program written in a high level language is called source code. It is also called source program. It cannot be executed by the computer directly. Language processor is required to convert it into object code.

22.

Ans:

**List four advantages of C-Language.**

1. Convenient language
2. Well-structured language
3. Machine independence
4. Small language

23.

Ans:

**What do you mean by bug?**

An error in a computer program or software is known as a bug. A programmer can make different errors while typing or writing a program. A program cannot compile if it contains any bug.

24.

Ans:

**List any four commonly used High Level Languages.**

(2 Times)

C++, Java, Pascal, Basic, Cobol.

25.

Ans:

**Why the Source Code cannot be executed directly?**

Computer can only understand binary or machine language. But high level language cannot understand by the computer. So to run a source code on computer we need a language processor to convert it into machine language. Then it becomes understandable by computer.

Ans:

**Differentiate between Preprocessor directives and header file.**

Preprocessor directives	Header file
Preprocessor directives are the instructions given to the compiler before execution of actual program. It is also known as compiler directive. It is proposed by a program called preprocessor.	Header files are the collection of standard library functions to perform different tasks. Each header file has specific purpose. Many header files can be conclude in a single program.

27.

Ans:

**Name two main categories of programming languages.**

1. High level language
2. low level language

28.

Ans:

**Define Runtime Error.**

Runtime errors occur during the time of the execution of the program. It occurs when a statement directs the computer to execute an illegal operation such as a number dividing by zero.

**2017**

29.

Ans:

**How program logic Implemented?**

In unstructured programming language, the entire logic of the program is implemented in a single module or function. The program written in this language is error prone, difficult to understand, modify and debug.

30.

Ans:

**Define assembly language?**

It is a low level language. It is one step higher than machine language. In assembly language instructions are replaced with English like words known as mnemonics.



31. Write down preprocessor Math.h

Ans. #include <math.h>

32. Differentiate between machine and assembly language?

Ans. Machine Language

i) The type of language in which instructions are written in binary form is called machine language.

ii) It is directly understood by computer.

iii) It is very fast.

iv) It is machine dependent.

Assembly Language

i) It is one step higher

than machine language.

ii) Translator is required for this language.

iii) It is slower than machine.

iv) It is not machine dependent.

33. What is meant by Structured Program Language?

(2 Times)

Ans. In structured programming language the entire logic of the program is divided into a number of smaller modules or functions. Each module is a piece of code that implements a specific function.

34. What is meant by comments? Also give an example?

Ans. Comments are the statements that are not executed by compiler. They are of two types.

i) Multi line comments

/\* ..... \*/

ii) Single line.

\\ ..... :

i-e \\ I love C++.

2018

35. Why does machine language programs execute faster?

Ans: A program written in machine language can be executed very fast by computer because computer understands it directly and it does not need any translator to understand this language.

36. What is the use of main ( ) function in C.

(2 Times)

Ans: The main ( ) function is the place where execution of a C program starts. When the program is executed, the control enters main ( ) function and starts executing its statements.

37. What is meant by language processor?

Ans: A language processor or translator is a type of system software that converts programs written in high level language into machine language. Every computer language has its own translator.

38. Why the logical error is the most difficult error to find?

Ans: The logical error is the most difficult error because it cannot be detected by the compiler. It does not crash the programs. The user needs to review the whole program to find logical error.

39. Enlist logical operators.

Ans: i. AND operator ( & & )

ii. OR operator ( || )

iv. NOT operator ( ! )



40.  
Ans:

**Differentiate between compiler and Interpreter. OR What is compiler? (2 times)**

Compiler	Interpreter
A compiler is a program that converts the instructions of a high level language into machine language as a whole. The compiler checks whole programme and generate machine instructions.	An interpreter is a program that converts one statement of a program into machine language at one time. It executes a statement before translating the next statement of the source program.

41. **Describe the concept of linker.**

Ans: A program that combines the object program with additional library files is known as linker. It is a part of c++ compiler. The linker generates error message if the library file does not exist. A new file is created with .exe extension if the process of linking is successful.

42. **What are logical errors?**

Ans: A type of error that occurs due to poor logic of the programmer is known as logical error. A statement with logical errors may produce wrong results. For example typing a wrong formula.

**2019**

43. **Differentiate between linker and loader?**

Ans:

Linker	Loader
A program that combines the object program with additional library files is known as linker. It is used to perform the process of linking. In this process, the library files are linked with object program. These files are used to accomplish different tasks such as input/output etc.	A program that places an executable file in the memory is known as loader. A program must be loaded in the memory in order to execute it.

44. **Why do you include "stdio.h" header files in C-program?**

Ans: This header file includes in C-program because this header file contains the definitions of built-in input and output functions such as printf () and scanf () etc.

45. **What is the purpose include directive?**

Ans: The "include" preprocessor directives enable a program to access a library. Each library contains different header files. The include preprocessor directive is used to include header files in the program.

46. **How is header file included in C-program?**

Ans: The preprocessor directive include is used to add a header file in the program. The name of the file is written in angle brackets <> after # include directive.

## LONG QUESTIONS OF CHAPTER-8 IN ALL PUNJAB BOARDS 2011-2021

1. Briefly describe the basic structure of C program with example.
2. How would you create, edit, compile and execute a C program? Discuss briefly.
3. What is an Error? Explain different types of Errors in C-Language. (2 Times)
4. What necessary steps are taken to prepare a C program for execution? Explain in detail. (2 Times)
5. What is language processor? Describe different types of language processor.