# **Compiler Design MCQ (Multiple Choice Questions)**

1. What is a compiler?  
a) system program that converts instructions to machine language  
b) system program that converts machine language to high-level language  
c) system program that writes instructions to perform  
d) None of the mentioned

2. Which of the following is a stage of compiler design?  
a) Semantic analysis  
b) Intermediate code generator  
c) Code generator  
d) All of the mentioned

3. What is the use of a symbol table in compiler design?  
a) Finding name’s scope  
b) Type checking  
c) Keeping all of the names of all entities in one place  
d) All of the mentioned

4. Which of the following error can a compiler check?  
a) Syntax Error  
b) Logical Error  
c) Both Logical and Syntax Error  
d) Compiler cannot check errors

5. A programmer, writes a program to multiply two numbers instead of dividing them by mistake, how can this error be detected?  
a) Compiler or interpreter  
b) Compiler only  
c) Interpreter only

d) None of the mentioned

6. Who is responsible for the creation of the symbol table?  
a) Assembler  
b) Compiler  
c) Interpreter  
d) All of the mentioned

7. Which of the following is known as a compiler for a high-level language that runs on one machine and produces code for a different machine?  
a) Cross compiler  
b) Multipass compiler  
c) Optimizing compiler  
d) One pass compiler

8. Which of the following is a system program that integrates a program’s individually compiled modules into a form that can be executed?  
a) Interpreter  
b) Assembler  
c) Compiler  
d) Linking Loader

9. Which of the following is a definition of compiler?  
a) Acceptance of a program written in a high-level language and produces an object program  
b) Program is put into memory and executes it  
c) Translation of assembly language into machine language  
d) None of the mentioned

10. Which of the following phase of the compiler is Syntax Analysis?  
a) Second  
b) Third  
c) First  
d) All of the mentioned

11. Which of the following concept of FSA is used in the compiler?  
a) Code optimization  
b) Code generation  
c) Lexical analysis  
d) Parser

12. Which of the following is a part of a compiler that takes as input a stream of characters and produces as output a stream of words along with their associated syntactic categories?  
a) Optimizer  
b) Scanner  
c) Parser  
d) None of the mentioned

13. Let L1 = {w ∈ {0,1}∗ | w has at least as many occurrences  
of (110)’s as (011)’s}.  
Let L2 = { ∈ {0,1}∗ | w has at least as many occurrences  
of (000)’s as (111)’s}.  
Which of the following is correct?  
a) L2 is regular  
b) L1 and L2 are regular  
c) L1 is regular but not L2  
d) None of them are regular

14. What is CFG?  
a) Regular Expression  
b) Compiler  
c) Language expression  
d) All of the mentioned

15. Which of the following is a correct statement?  
I. For some programming languages, there are parsing algorithms with an O(3) complexity.  
II. A recursive programming language can be constructed with static storage allocation.  
III. In the context of bottom-up parsing, no L-attributed definition can be evaluated.  
IV. Code-improvement modifications can be carried out at both the intermediate and source code levels.  
a) I and III  
b) I and IV  
c) I, II and IV  
d) I, II, III and IV

16. Which of the following is correct regarding an optimizer Compiler?  
a) Optimize the code  
b) Is optimized to occupy less space  
c) Both of the mentioned  
d) None of the mentioned

17. Which of the following error can Compiler diagnose?  
a) Logical errors only  
b) Grammatical and logical errors  
c) Grammatical errors only  
d) All of the mentioned

18. In which of the following phase of the compiler is Lexical Analyser?  
a) Second  
b) Third  
c) First  
d) All of the mentioned

19. Which of the following does an address code involve?  
a) No unary operators  
b) Exactly 3 address  
c) At most Three address  
d) None of the mentioned

20. An object module for a group of programs that were compiled separately is handed to a linker. Which of the following about an object module isn’t true?  
a) Relocation bits  
b) Names and locations of all external symbols denied in the object module  
c) Absolute addresses of internal symbols  
d) Object code

21. Characters are grouped into tokens in which of the following phase of the compiler design?  
a) Code generator  
b) Lexical analyzer  
c) Parser  
d) Code optimization

22. Why Generation of intermediate code based on an abstract machine model is useful in compilers?  
a) Writing for intermediate code generation  
b) Portability of the front end of the compiler  
c) Implementation of lexical analysis and syntax analysis is made easier  
d) All of the mentioned

23. Why System program such as compiler are designed?  
a) They are Serially usable  
b) They are Re-enterable  
c) They are Nonreusable  
d) All of the mentioned

24. Which of the following technique is used for building cross compilers for other machines?  
a) Canadian Cross  
b) Mexican Cross  
c) X-cross  
d) Brazilian Cross

25. Which of the following can detect an error if a programmer by mistake writes multiplication instead of division?  
a) Interpreter  
b) Compiler or interpreter test  
c) Compiler  
d) None of the mentioned