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# C Programming Record Work

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1. **What is programming? Why we need programming?**
2. **What is an algorithm? Write the various criteria used for judging an algorithm.**
3. **What is a flowchart? Explain the different symbols used in a flowchart.**
4. **What is the use flowchart?**
5. **Write an algorithm and draw a flowchart to find biggest of 3 nos.**
6. **What are the different steps involved in program development?**
7. **Write short notes on generations of computer languages. [OR] Explain**
  1. **Low-level language**
  2. **Middle-level language**
  3. **High-level language**
8. **Write the various steps involved in executing a C program and illustrate it with the help of flowchart.**
9. **Explain the structure of C program.**
10. **What are the general characteristics/features of c language?**
11. **Write short notes on identifiers in C.**
12. **What is the purpose of type declarations? What are the components of type declarations?**
13. **Write about space requirement for variables of different Data types(Or)List the entire data types in c. Explain them in detail.**
14. **What are different types of integer constants, character Constant, String constant, etc.(Or) What are constants and explain them in detail.**
15. **Summarize the standard escape sequence in C.**
16. **What is a variable? Rules for declaring variables.**
17. **What is an operator? Describe different types of operators that are included with the 'C' language with an example for each.**
18. **Explain the following?**
  1. **Increment and decrement operator/unary operators**
  2. **Conditional operators**
  3. **Bitwise operators**
  4. **Assignment operators**
  5. **Logical operators**
19. **Explain the working of Ternary/conditional operator with an example?**
20. **What does mean by type conversion? Why it is necessary? Explain with example.**

21. What is meant by operator precedence? What are the relative precedence and associativity of arithmetic operators?
22. State the rules that are applied while evaluating an expression in automatic type conversion.
23. What is meant by two-way selection? Explain the different statements used for implementing two-way selection with Examples?[OR] What are selection statements? Explain them in detail.
24. What do u mean by simplifying if statements or write about switch case with examples.(OR) Multi-way Selection.
25. Write about Strings in C. Explain then in detail.
26. What is repetition structure? Explain all the looping structures with examples.
27. Write about control statements in C. Explain them in detail.
28. Write about break, continue and goto with examples.(jump statements)
29. What is loop initialization and loop update.
30. Explain about Event & Counter controlled loops. (Logical loops).
31. Write the differences between while and do-while.What are the advantages of for-loop over these two?
32. In what way array is different from ordinary variables.[OR] What is an array? Explain them in detail.
33. Write about character arrays. And Explain
  1. Single dimensional character arrays and
  2. Multi-dimensional character arrays.
34. What are strings built in functions? Explain few String functions in detail.
35. What is the function? Explain about user defined functions in C language. [OR] What do u mean by functions? Give the structure of the function and explain about the arguments and their return values.
36. Write short notes on actual arguments and formal Arguments.
37. What are the advantages of using Functions?
38. Explain in details with example.
  1. Pass by value
  2. Pass by reference
39. Explain storage classes in C with examples.
40. Distinguish between
  1. Actual and formal arguments.
  2. Global and local variables.
  3. Automatic and static variables.
41. Write about block structure and scope of variables. Illustrate with an Example.
42. Write Short notes on scope of a variable.
43. What are standard library functions? Illustrate them with suitable examplesDifference between user-defined functions and built-in functions.
44. What is recursion? And what are its advantages. Explain with one example (Towers of Hanoi).

45. Explain categories of functions.
  1. With return type & with parameters.
  2. With return type & without parameters.
  3. Without return type & with parameters.
  4. Without return type & without parameters.
46. What are header files and Preprocessors in 'C'.(OR) Explain about header files and preprocessor directives in C.
47. Write about pointers, and its advantages with example.
48. How can we pass the pointers to the following?
  1. i) Pointers to pointers.
  2. ii) Pointers to functions.
  3. iii) Pointers to arrays.
49. Write short notes on:
  1. What is a null pointer? When it is used?
  2. What is a 'void' pointer? When 'void' pointer is used?
50. What is dangling memory? What are consequences and how it can be avoided?
51. What is static and dynamic memory management? Explain with example. (OR) Write about static memory and dynamic memory with dynamic memory allocation functions.
52. What is the difference between malloc() and calloc().
53. What is enum and explain it with example.
54. What is a structure and union type? Explain them with examples.
55. Explain the concept of nested structures. Explain them with examples.
56. Explain in detail about types of structures.
  1. Ordinary structures.
  2. Array type structures.
  3. And explain advantages of array structures over ordinary structures.
57. Write about typedef with an example.
58. Explain file handling in c. and explain various file opening modes in C language. Explain about file handling functions in c.
59. Distinguish between text file and binary files.
60. Explain about various character input functions.