BASIC C++ QUESTINS

- 1. Write a program to print "Hello, World!".
- 2. Write a program to add two integers.
- 3. Write a program to find the size of different data types.
- 4. Write a program to swap two numbers using a temporary variable.
- 5. Write a program to calculate the area of a circle.
- 6. Write a program to convert temperature from Celsius to Fahrenheit.
- 7. Write a program to check if a number is even or odd.
- 8. Write a program to find the largest of two numbers.
- 9. Write a program to find ASCII value of a character.
- 10. Write a program to compute the sum of digits of a number.

Control Structures (11–25)

- 11. Write a program to find whether a number is positive, negative, or zero.
- 12. Write a program to check whether a year is a leap year.

- 13. Write a program to print numbers from 1 to 100.
- 14. Write a program to print the multiplication table of a number.
- 15. Write a program to find the factorial of a number using a loop.
- 16. Write a program to find the reverse of a number.
- 17. Write a program to count the number of digits in a number
- 18. Write a program to calculate the sum of first N natural numbers.
- 19. Write a program to print all even numbers from 1 to 100.
- 20. Write a program to check if a number is prime.
- 21. Write a program to generate Fibonacci series up to N terms.
- 22. Write a program to print a number pattern (e.g., triangle).
- 23. Write a program to find the power of a number using loops.
- 24. Write a program to check if a number is a palindrome.
- 25. Write a program to find LCM and GCD of two numbers.

Functions (26–35)

- 26. Write a function to find the maximum of three numbers.
- 27. Write a function to compute the factorial of a number.
- 28. Write a function to check if a number is a prime number.
- 29. Write a program to demonstrate function call by value.
- 30. Write a program to demonstrate function call by reference using pointers.
- 31. Write a function to compute the sum of digits.
- 32. Write a recursive function to compute factorial.
- 33. Write a recursive function to generate Fibonacci series.
- 34. Write a function to reverse a number.
- 35. Write a function to swap two numbers using pointers.

Arrays (36-50)

- 36. Write a program to read and print elements of an array.
- 37. Write a program to find the sum and average of elements in an array.

- 38. Write a program to find the largest element in an array
- 39. Write a program to find the smallest element in an array.
- 40. Write a program to copy elements from one array to another.
- 41. Write a program to reverse an array.
- 42. Write a program to search for an element in an array.
- 43. Write a program to sort an array using bubble sort.
- 44. Write a program to merge two arrays.
- 45. Write a program to insert an element at a specific position in an array.
- 46. Write a program to delete an element from an array.
- 47. Write a program to count even and odd elements in an array.
- 48. Write a program to find the second largest element in an array.
- 49. Write a program to find duplicate elements in an array.
- 50. Write a program to count frequency of each element in an array.

Strings (51-65)

- 51. Write a program to read and print a string.
- 52. Write a program to find the length of a string.
- 53. Write a program to copy one string to another.
- 54. Write a program to reverse a string.
- 55. Write a program to concatenate two strings.
- 56. Write a program to compare two strings.
- 57. Write a program to count vowels and consonants in a string.
- 58. Write a program to count the number of words in a string.
- 59. Write a program to check whether a string is palindrome.
- 60. Write a program to convert a string to uppercase.
- 61. Write a program to convert a string to lowercase.
- 62. Write a program to find a substring in a string.
- 63. Write a program to remove spaces from a string.
- 64. Write a program to remove all vowels from a string.

65. Write a program to find the frequency of characters in a string

Pointers (66–75)

- 66. Write a program to demonstrate the use of pointers.
- 67. Write a program to swap two numbers using pointers.
- 68. Write a program to find the sum of an array using pointers.
- 69. Write a program to reverse an array using pointers.
- 70. Write a program to access array elements using pointers.
- 71. Write a program to print addresses of elements in an array.
- 72. Write a program to find length of a string using pointer.
- 73. Write a program to copy a string using pointers.
- 74. Write a program to compare two strings using pointers.
- 75. Write a program to pass pointer to a function.

Structures and Unions (76–85)

76. Define a structure for student and display student data.

- 77. Write a program to read and display employee details.
- 78. Write a program to store and display book details using array of structures.
- 79. Write a program to add two distances (feet and inches) using structures.
- 80. Write a program to demonstrate nested structures.
- 81. Write a program to sort records using structure.
- 82. Write a program to store and display date using structure.
- 83. Write a program to use union and display data.
- 84. Write a program to demonstrate difference between structure and union.
- 85. Write a program to pass structure to function.

File Handling (86-90)

- 86. Write a program to create and write into a file.
- 87. Write a program to read content from a file.
- 88. Write a program to copy content of one file to another.

- 89. Write a program to count characters, words and lines in a file.
- 90. Write a program to append data to an existing file.

Dynamic Memory Allocation (91–95)

- 91. Write a program to use malloc () to create an integer array.
- 92. Write a program to reallocate memory using realloc().
- 93. Write a program to free allocated memory using free().
- 94. Write a program to use calloc() for allocating memory.
- 95. Write a program to store N numbers using dynamic memory allocation.

Miscellaneous / Advanced (96-100)

- 96. Write a program to implement a calculator using switch case.
- 97. Write a program to implement binary search.
- 98. Write a program to find transpose of a matrix.

- 99. Write a program to add two matrices.
- 100. Write a program to multiply two matrices.

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