

Unit-1

1. Write a short note on basis structure of C program.
2. What is meant by formatted input and output?
3. What are relation operators? Write a C program to show implementation of relational operators in C program?
4. Discuss the concept of nesting of loop with an example.
5. Write program to print numbers from 1 to 20 in ascending order using do-while-loop.
8. Briefly explain importance of the comment in C programming.
9. Write a short note on implicit type conversion.
10. Write a C program to read a character form keyboard and then prints it in reverse case. That is, if the input is upper case, the output will be the lower case and vice versa.
11. State and explain for statement in programming with suitable example.
12. Explain the loop structures available in C languages. Explain any one in detail with example.
13. What is the difference between = and == symbols in C programming? Explain with suitable example.
14. Briefly explain with example working of continue statement in C programming.
15. Write a short note on conditional operator.
16. Write a C program to accept the number from user, if the entered number is greater than 100 then print that "your number is greater than 100" else print as "your print is smaller than 100".

17. Write a C program to accept the input from user, if the user entered character display a message telling that it is an alphabet, for digit display as it is digit, or any other special character.
18. State and explain while statement in C programming with suitable example.
19. Write a C program to check whether a VOWEL or CONSONANT using switch case and print the appropriate message in the output.
20. Write a C program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.
21. Explain the memory size and range of data possible.
22. What are bitwise operators? Explain citing an example for each.
23. Write a 'C' program to accept number and find out whether it is even or odd.
24. Distinguish between IF-else structure and switch statement. Give example to support your answer.
25. Write a short note on automatic and explicit type of conversation?
26. Write a program which uses nested structure?
27. Explain with example working of "goto" statement?
28. Give the difference between while() and do..while loops. Use an example to support your answer?
29. Write a short note on ternary operator?
30. Explain the switch case expression in c programming?
31. Explain working of increment and decrement operator in c programming? Explain with example?
32. Write a c program to print following pattern. Accept the number of lines from the user

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Unit-2

1. What are multi-dimensional arrays? How one can assess an array element? Explain with the help of an example.
2. Briefly explain the working of following function.
 - getchar()
 - puts()
3. What are strings? Write a C program to declare two string “computer” and “science, use an appropriate string manipulation function to display output as one string “computer science”.
4. How function declaration differs from function definition? Write a C program to show function calling by passing a value.
5. Define recursion. Write a program to calculate factorial of a number entered by user, using recursion.
6. Write a C program to find largest and smallest number in an array.
7. Explain working of gets() and puts() function with suitable program.
8. Write a C program to perform concatenation operation of string with and without using strcat().
9. State an example: elements of user-define functions.
10. Distinguish between global and local variable with suitable example.
11. What is nesting of functions? Illustrate it with suitable example to explain the same.
12. Differentiate between array types of C with list and tuple types of python.
13. Explain the various ways of initializing one-dimensional integer and character arrays.
14. What is putchar? Explain with appropriate example.

15. Explain in detail function prototype.
16. Briefly explain working of strcmp function.
17. Write syntax and explain the use of the following functions:
 - getch()
 - getche()
 - getchar()
 - getc()
 - gets()
18. Differentiate between pass by value and pass by reference. Support your answer with an example.
19. How are strings in C implemented? Explain with an example.
20. What is an array? What are the advantages and disadvantages of an array?
21. Write a program to copy one string to another without using standard library function.
23. Consider an array of unsorted number for elements. Write a C program to find duplicate number is in array if exist then replace second occurrence onwards of that number by 0.
24. Explain working of getchar() and putchar() functions with suitable program.
25. Write a program to perform copying of one string into another string each with and without strcpy.
26. State the different categories of functions. Write a C program to explain any one.
27. Write C program to calculate power of a number with Recursion function.
28. With the help example Formal parameters and Actual parameters.
29. Write a program which consist of a function and show uses of return statement ?

30. Write a program in C to accept a string and check if the string is palindrome or not. Print a suitable message?
31. Write a program using recursive function to find factorial of a number top accepted from the user?
32. State and explain example of a function with argument and return values?
33. What is mean by calling a function passing by reference?

Unit-3

1. What is pointer? How is pointer initialized?
2. List different benefits of pointers?
3. How structures are initialized? How does structure differs from array?
4. What is the use of dynamic memory allocation?
5. Discuss the working of following function
 - fopen()
 - fclose()
 - fprintf()
 - getw()
 - putw()
6. Compare and contrast between C structures and python tuples.
7. Write dynamic memory management. Explain any one dynamic allocation function.
9. Write a C program to create an array of 3 elements for structure to store id , name , and percentage of student. Accept record from user and print the same.
11. Write a C program to store integer values in a file called 'INPUT'. Read input file, perform file, perform addition of all even numbers in the file and print as the output.
13. Write a short note on chain of pointers.
14. Write a C program for defining pointer variable to the structure. Also initialized structure elements pointer and print the same.
15. State and explain rules of initializing structure?
16. What does size of operator does? Explain with suitable example.

17. Write a C program using pointers to compute the sum of all elements stored in an array.
18. What is Union in C programming? How is different from structure.
19. What are nested structures? Explain with an example.
20. What are the types of files available in C? Explain the various file opening modes in C.
21. Write a note on unions in C. Support your answer with an example.
22. Explain malloc() and calloc() with syntax and example. How percentage of marks) for 'n' student are they different?
23. Write a program to accept student information (Roll no., name , percentage of marks) for 'n' students (Dynamically allocated). Store this in file and display it in well format (Accept 'n' from the user.)
25. Explain the various ways of declaring and initializing of pointer variables.
27. Write structures in C to store id., name and percentage of students accept record from user and print the same.
28. Distinguish between STRUCTURE & UNION.
29. What is file? List out and explains one line different functions available for performing file related operations.
30. Write a C program to create a file to accept detail about student like class name, Roll no, student name through keyboard into the file 'SOURCE'. Print the content of 'SOURCE' file.

- i.** What is a structure? Give an example
- ii.** What is a pointer?
- iii.** Write the syntax of fopen?
- iv.** What is an escape sequence?
- v.** Give syntax of do..while() loop
- vi.** Give syntax of while loop
- vii.** Give syntax of For loop

- i) What is mean by reserved words?
 - ii) In the function call `strcat(s2, s1)`; final result gets stored into which string?
 - iii) What are header files and how are they useful in C programming.
 - iv) The variables declared in a structure definition are called as?
 - v) When is the “void” keyword used in a function?
- a. List arithmetic operators.
 - b. List logical operators
 - c. List bitwise operators
 - d. List relational operators
 - e. Define variable
 - f. What is mean by keyword.
 - g. What does “&” do in scanf()?
 - h. What are arrays?
 - i. What is functions prototype?
 - j. List any two functions, which are used to manipulate string?

(tokens,int,functions, unary operation,contiguous, strcmp(),single operation, void, continuous, strcat())

- a. The _____ library function is used to concatenate one string to the end of another string.
- b. A C program is basically a collection of _____.
- c. In the C programming language, array elements always have _____ address.
- d. An operation with only one operand is called _____ operation.
- e. The default return type of a function in C is _____.
- f. An _____ constant refers to a sequence of digits
- g. A program consist of a for statement within another for statement, is called as _____
- h. A function that calls itself is known as a _____-function
- i. The variable declared in a structure definition are called its _____.
- j. Function is used to close a file
{ argument, 2, continue, or, 3, goto, scanf, function, printf, and }

The _____ function is used to display the output on the screen.

The _____ statement is used to skip a part of the statements in a loop.

The _____ operator is true only when both the operands are true.

The function `strcat` has _____ parameters.

The parameter used in a function call is called _____.