CITY CHALAPATHI Institute of Technology

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C22 - Programming Through C

Assignment and Important Questions

UNIT-I

1. Explain the basic structure of the C program?

2. Define an algorithm and explain it with an example program.

3. Define a flow chart and explain it with an example.

4. Write an algorithm to find the largest of 3 integer numbers.

5. Explain the process of creating and running a C program?

6. Define data types? Explain different types of data types with an example.

7. Define identifiers? What are the rules to define variables?

8. What are constants in C? Explain different types of constants using an example.

9. What are keywords in C? List and explain any 6 keywords.

10. Explain formatted Input () and Output () functions in C.

UNIT-II

1. What are operator precedence and Associativity?

2. Explain the initialization and updation of the loop with an example program?

3. Explain implicit and explicit type casting with examples?

4. Explain the switch case statement with an example?

5. Explain two-way selection statements with an example?

6. What is an operator? Explain Bitwise and Conditional operators.

8. Explain the Relational operator, Assignment operator, and Increment/decrement operators with examples?

7. Explain various Selection (or Conditional) statements in C with syntax.

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8. What are loops in C? Explain the initialization and updation of a loop with an example program.

9. Differentiate Entry-controlled (Pre-test) and Exit-controlled (post-test) loops with examples?

10. Define expression? Explain the evaluation of expressions with an example.

C Programs:

11. Write a c program to check whether the given number is even or odd.

12. Write a c program to check whether the given year is a leap year or not a leap year.

13. Write a c program to check whether the given number is an Armstrong number or not.

14. Write a c program to check whether the given number is a prime number or not

15. Write a c program to find the factorial of a given number.

UNIT-III

1. Define an array. Explain different types of arrays.

2. Define strings in C. Explain string handling functions in C.

3. List and Explain formatted input and output functions in strings.

4. Explain the structure, union, and enumeration with an example.

5. Explain derived data types with an example?

6. Explain the differences between an array of structure and an array within a structure.

C Programs

7. Write a C program to find the largest element in an array.

8. Write a C program for the multiplication of two matrices.

9. Write a C program to compare two strings without using library functions.

10. Write a C program to print individual characters of a string in reversed order.

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UNIT-IV

1. What is a pointer in C. Explain double pointer (or pointer to pointer) with an example.

3. Explain the pointer arithmetic operations in C.

4. Explain pointers to arrays with an example.

5. What is Dynamic Memory allocation using pointers and explain with a sample code.

6. What are arrays of pointers? Illustrate them with a sample code.

7. Describe the workings of the following statements

   i. int val, *ptr=&val;   ii. int score, *score;   iii. float *salary   iv. char *str

8. What are storage classes in C and illustrate them.

C Programs

9. Write a c program to count the number of vowels and consonants in a string using a pointer.

10. Write a c program to find the sum of n elements entered by a user. To perform this program using dynamic memory allocation function malloc ().

UNIT-V

1. What are functions in C? Describe the syntax structure of a function and explain arguments and return value.

2. What are user-defined functions in C and demonstrate them with an example.

3. What is parameter passing in C functions? Illustrate I.call by value and II.call by reference (pointer) with an example.

4. Define recursion with an appropriate syntax and illustrate it with an example program.

5. Define file and file streams in C. Explain in detail about file opening, reading, writing functions with examples.

7. Explain character input and output functions in files.

8. Write a C program with functions for each of the arithmetic operations.

9. Write a C program to append multiple lines at the end of a text file.

10. Write a C program to copy one file into another file,