

Unit 1

1. Define Algorithm?
2. What is the use of flow chart?
3. What are the different steps followed in the program development?
4. Write about space requirement for variables of different data types?
5. What is an operator? Describe the different types of operator that are included in the 'C' language with the example for each?
6. What are the logical operators used in C?
7. What are unary operators?
1. Explain program development environment in C with the help of diagram.
 2. Describe various program development tools.
 3. What do you understand by token? Explain various types of tokens in C language.
 4. What is an operator and operand? Explain various types of operators in C language.
 5. What do you understand by C standard library.
 6. Write a program to implement various bitwise operators in C language.
 7. What is the difference between unary/binary/ternary operator (conditional operator).
 8. What is the difference between pre-increment and post-increment?

Unit-2

In what way 'if' statement is different from switch statement? Write a program using switch statement to manipulate students grade system?

2. explain about the concept of multiway selection and the different ways of implementing with examples

3. explain

a. mask

b. rotation

4. what are logical operators used in C? illustrate with examples

5. explain about shift operator?

1. WAP to create mini calculator using switch case in C language.
2. WAP to take 5 subject marks, calculate the percentage. If the percentage greater than 90 give A grade, if percentage in between 80-90 give B Grade. (if-else statement)
3. What is the difference between break and continue statements? Give an example.
4. Explain various jump statements in C language.
5. What is the difference between while and do-while loop? Give example.
6. LOOP Programs
 - a. WAP to print a table of no.
 - b. WAP to find factorial of number
 - c. WAP to find prime number
 - d. WAP to generate Fibonacci series.
 - e. WAP to find no. is palindrome or not (Reverse)
 - f. WAP to find no. is Armstrong or not
7. Explain various types of functions in C language (Formatted and un-formatted functions).
8. FUNCTION PROGRAMS
 - a. What is the difference between call by value and call by address? Explain with the help of example.
 - b. Write a program to pass array to function.
 - c. WAP to find factorial of a number using recursive function.
 - d. WAP to generate Fibonacci series using recursive function.

Unit-3

1. list and explain with examples the common applications for loops?
2. Difference between break and continue statement with examples?
3. suppose a break statement is included with in the innermost of several nested control statement what happens when break ststement is ececuted?
4. what is the purpose of break statement?
5. what is meant by looping?
6. why 'while statement is called repetition structure?
7. explain briefly about string classifications?
 1. What do you understand by storage classes? Explain various types of storage classes in C.
 2. What is the difference between auto and static storage class? Give example.
 3. WAP for linear search.
 4. WAP for binary search algorithm
 5. WAP for bubble sort.
 6. WAP to find max and min number in an array.
 7. WAP to pass array to function.
 8. WAP for matrix addition, transpose, sum of diagonal and matrix multiplication.

Unit-4

1. What is the advantage of using arrays?
2. Different types of arrays?
3. How are multi dimensions array defined?
4. How multi dimensions array is passed to functions how are the formal arguments declarations written? Compare with one dimensional array?

1. What do you understand by string? Explain various string functions in C language.
Strlen, strlen,strupr, strrev, strcpy, strncpy, strcat, strncat, strcmp, strncmp, strcmp, strcmp, itoa, atoi
2. What do you understand by character arithmetic.
3. What do you understand by pointer? Explain various types of pointers in C language.
4. WAP to pass pointer to a function.
5. WAP to access 1-D array with the help of pointer.
6. What do you understand by array of pointer? Give an example.

Unit 5

1. what is a function? what are the different types of functions? explain functions with no arguments and no returns type with an example?
2. explain about call-by value with an example?
3. difference between userdefined and built function?
4. what are the facilities provided by the preprocessor statement? explain with a program.
5. write a program to generate fibonacci series?
6. write a recursive function power that when involved returns base exponent?
7. write a c program that uses a function to sort an array of integers?

1. What is the difference between array and structure? Give an example.
2. Write a program to create a structure student having members: roll number, name, fees. Declare an array of structure for 5 students, take the data and print the same on output screen.

3. Write a program to create a union of employee having members: employee id, name, salary. Declare an array of union for 5 employees, take the data and print the same on output screen.
4. What is the difference between structure and union? Give an example.
5. What do you understand by nested structure? Give an example.
6. WAP to access an structure with the help of pointer.

Unit-6

1. write a short notes on pointere?
2. write a c program that uses a pointer as a function argumeny?
3. if m and n have been declared as integers and p1 and p2 as pointer to integers then find out the errors if any of the following statements?
 1. p1=&m;
 2. p2=n;
 3. m=p2=p1;
 4. *p1=&n;
4. state wheather each of the following state is true or false give reasons
 - a. an integer can be addede to a pointer
 - b. a pointer can never be subtracted from anoth er pointer.
 - c. when an array is passed as an argument to afunction apointer is passed
 - d. pointer cannot be used as formal parameters in headers to function definition
1. What do you understand by dynamic memory allocation? Explain various functions used in DMA.
2. WAP to allocate an array with malloc/calloc? Input the data and print the same on output screen.
3. WAP to show the difference between calloc and malloc.
4. What do you understand by memory leak problem.
5. Explain various file opening modes in c language (12 modes)

6. Describe the categories of file. (Sequential and Random file access)
7. Explain various types of files. (Text and binary files)
8. FILE HANDLING PROGRAMS
 - a. WAP to read a file. (fscanf,fgetc,fgets,fread)
 - b. WAP to write a file in c language (fprintf,fputc,fputs,fwrite)
 - c. WAP to copy one file to another file
 - d. WAP to count no. of alphabets, digits, spaces, lines and special character in C.
9. What do you understand by pre-processor?
10. Explain the macros in C language.

Unit-7

- 1.define structure?write rule for declaring structure and accesing with a program?
- 2.how structure is different form an array?explain
- 3.explain the concept of nesting of structure and accessing structure numbers with a program?
- 4.Write a short notes on array of structure?
- 5.how an array be included as a member of a structure?
- 6.how bits are manipulated using bit fields in 'c' explain?
- 7.how to compare structure variables?give examples?
- 8.how an array be included as a member of a structure

Unit 8

1. Write the syntax for opening a file with various modes and closing a file?
2. Distinguish between text mode and binary mode operations of a file?
3. Explain about file handling functions?

4. Write a program to read a textfile and to commit

a.number

b.number of words

c.number of sentences and write in an output file.

5. Write a program to open a preexisting file and add information at the end of the file .display the contents of the file before and after appending?

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