UNIT – 1

1. Differentiate RAM and ROM.
2. Write an algorithm to calculate factorial of a number.
3. Draw a flow chart to find sum of digits in a given number.
4. Draw the block diagram of a computer and explain various blocks.
5. What are the various types of memory? How do they differ from each other.
6. Compare the use and working of primary and secondary memory
7. What is need of an operating system? What are its responsibilities ?
8. What is meant by compilation ? what is meant by interpretation?How do these two processes differ?
9. Define Algorithm? What are the characteristics of algorithm?
10. Define flowchart? What are the symbols used in flowchart?
11. Write an algorithm,pseudo code and flowchart for finding:
    i)Minimum out of three numbers
    ii)Maximum out of four numbers
    iii) Factorial of a number
    iv) Smallest out of 'n' numbers
12. What are the keywords in C?What restrictions apply to their use ?
13. Name and describe the four basic data types in C
14. What is a variable? How can variables be characterized?
15. What are the steps to follow for develop a program?

UNIT – 2

1. Demonstrate the syntax of "nested-if" using an example.
2. Explain the differences between while and do-while statements, with suitable examples.
3. Write a C program to find whether the given number is palindrome or not using for loop.
4. State the purpose of a two dimensional array. Write a C program for Matrix Multiplication.
5. Write a C program using various String functions.
6. Describe the operators in C ?Summarize the rules associated with their use.
7. What is operator precedence and associativity?
8. What is the purpose of break and continue statement?
9. What is the purpose of the goto statement?
10. What is the purpose of the switch statement? How does this statement differ from the other statement?
11. What is nesting of loops?Explain with sample program.
12. What is string? Explain the working of string library functions.
13. How gets() differ from scanf() using %s?
14. What is null character? What are its advantages in strings .
15. Write a program that finds the given string is palindrome or not .

UNIT-3

1. Write a program that sorts given list of values in ascending or descending order using Bubble sort technique?
2. Write a program that sorts given list of values in ascending or descending order using Selection sort technique?
3. Write a Program the performs linear search and binary search techniques?
4. Write a program that calculates the roots of a quadratic equation?
5. What is a function? Are functions required when writing a C program?
6. State three advantages to the use of functions .
7. What are arguments? What is their purpose ? What other term is sometimes used for and argument?
8. What is the purpose of the return statement?
9. What is purpose of keyword void ? where is this keyword used?
10. What are function prototypes ? what is their purpose? Where within a program are function prototype normally placed ?
11. What are the types of user defined functions ? explain with examples ?
12. Differentiate between call by value and call by reference ?
13. Can arrays be passed as parameter to function? Explain with sample program.
14. Explain different types of functions in C ?
15. Differentiate actual arguments and formal arguments in functions ?

UNIT –4

1. What is Recursion? What advantage is there in its use?
2. Explain why some problems can be solved either with or without recursion?
3. Write a program reads in a line of text on a character-by-character basis, and then displays the characters in reverse order using recursion.
4. Write a program to find the factorial of given number using recursion.
5. Write a program to find the GCD of given two numbers using recursion.
6. Write a program to generate the Fibonacci series using recursion.
7. What is a structure? How does a structure differ from an array?
8. Describe the syntax for defining the composition of structure. Can individual member be initialized within a structure type declaration?
9. How can structure variables be declared? How does structure variable declaration differ from structure type declarations?
10. Can a structure variable be defined as member of another structure? Can an array be included as a member of a structure ? Can an array have structures as elements ?
11. How is structure member accessed?
12. How can the size of a structure determined?
13. How is structure type pointer variable declared? To what does this type of variable point?
14. How can an entire structure be passed to a function?
15. How can an entire structure be returned to a function?

UNIT-5

1. How is variables address is determined ?
2. How is pointer variable declared? What is the purspose of datatype included in the declaration?
3. How can a portion of an array be passed to a function?
4. A C program contain the following statements.

    int i, j=25;

    int pi,*pj=&j;

    . . . .

    *pj=j+5;
    i=*pj+5;
    pi=pj;
    *pi=i+j;

    Suppose each integter quantity occupies 2 bytes of memory. If the value assigned to i begins at F9C and the value assigned to j begins at address F9E, then

    a. What values is represented by &i?
    b. What values is represented by &j?
    c. What value is assigned to pj?
    d. What values is assigned to *pj?
    e. What value is assigned to i?
    f. What values is represented by pi?
    g. What final value is assigned to *pi?
    h. What values is represented by (pi+2)?
    i. What value is represented by the expression(*pi+2)?
    j. What value is representd by the expression *(pi+2)?
5. Expalin self referential structure with an example?
6. What is the primary advantage to using a data file ?
7. Summarize the different file types that can be specified by the fopen function
8. Differentiate between the text and binary files.
9. What is the purpose of the flcose()?
10. How many ways a file can be opened ? Explain with an example .
11. Write a program that reads the contents of one file and print it in another file.
12. How to access the file randomly? Explain with a sample program.
13. Contrast the use of the fscanf and fprintf functions with the use of the scanf and printf function
14. What is the purpose of library function feof?
15. Write a program that counts the no.of vowels , no.of digits, no.of Spaces in a file.