

**Important Questions**  
**Computer Programming and Application**

**Short Answer Questions**

1. Define a program with example.
2. Define an Algorithm and Flowchart.
3. Define Interpreter. How it is different from compiler?
4. What are identifiers and keywords?
5. What are different data types available in C?
6. Explain precedence and associativity of C operators.
7. What header file is needed for the function getchar ( )?
8. Explain switch statement function in C.
9. What is library function?
10. What do you understand by recursion?
11. What is a pointer?
12. Explain address of and value at with example.
13. Differentiate between malloc( ) and calloc( ) function?
14. What are advantages of array?
15. What do you mean by array?
16. What are strings?
17. How pointers are related to string?
18. Write a short note on character arrays.
19. Define Structures.
20. Explain memory organization of structures.
21. What are unions? Explain.

### Long Answer Questions

1. Draw a flowchart to determine whether a given year is leap or not.
2. What are language processors? Explain working of compiler.
3. Write down structure of a C program and briefly discuss its each section.
4. What are different operators available in C and how they are categorized?
5. Explain various input and output statements used in C languages.
6. Write a C program to find the sum and average of a given N numbers.
7. Explain the difference between if-else and switch statements.
8. Write a program in C to find the factorial of a given number.
9. Explain various storage classes by giving examples of each.
10. Write a function to print first N terms of a Fibonacci sequence.
11. How pointers can be used to return multiple values from a function? Explain.
12. Write a program in C to multiply two matrices.
13. How many arrays are there? Explain in detail.
14. How pointers are useful in accessing arrays? Explain.
15. Explain any 5 standard library functions for handling strings.
16. How strings are passed to functions? Explain with example.
17. Differentiate Structure and array. Explain with example.
18. Write a program in which a structure is passed to function.
19. What is MATLAB? Why it is used? Explain in detail.
20. Explain the uses of PSIM software in electrical engineering.
21. Write a short note on :
  - a. ORCAD
  - b. PSPICE