**IEC College of Engineering and Technology, Greater Noida**
**DEPARTMENT OF APPLIED SCIENCE**
**SECTION-B**

# Assignment Unit 1

**Submission Date- 27-06-2022**

# Notes-Attempt any 10 questions.

1. What is the difference between .obj and .exe files in C?
2. Discuss the concept of assembler. Explain complier, interpreter, loader and linker with example.
3. Write an algorithm and draw a flowchart to find the sum of digits of an integer number entered by the user.
4. Write an algorithm and draw a flowchart to reverse an integer number entered by the user.
5. Draw the block diagram of a computer system. Explain its different components with suitable example.
6. List the components of C language.
7. Brief the storage classes in C with proper example.
8. Brief the Generations of the Programming languages with examples.
9. Write the fundamental data type in C Programming and its range.
10. Write the algorithm for addition of two numbers.
11. Define data types in C. Discuss primitive data types in terms of memory size, format specifier and range.
12. Explain the structure of a C program.
13. Differentiate between:(i) Compiler and Interpreter, (ii) Linker and Loader, (iii) break and continue
14. Write a program that prints the real roots of a quadratic equation. Also draw a flowchart for the same.
15. Describe the functionalities of the operating system.
16. A certain grade of steel is graded according to the following conditions:
    i.Hardness must be greater than 50
    ii.Carbon content must be less than 0.7.
    iii.Tensile strength must be less than 5600 The grades are as follows:

Grade is 10 if all the three conditions are met. Grade is 9 if condition (i) and (ii) are met. Grade is 8 if condition (ii) and (iii) are met. Grade is 7 if condition (i) and (iii) are met. Grade is 6 if only one condition is met. Grade is 5 if none of the conditions are met. Write a program, which will require the user to give values of hardness, carbon content and tensile strength of the steel under consideration and output the grade of the steel.

17. Draw the memory hierarchical structure of a computer system.
18. While compiling a code, write the name of two syntax and two logical errors.
19. What do you mean by scope and lifetime of a variable?
20. What are the good characteristics of an algorithm?