GUJARAT UNIVERSITY

BE-FIRST-YEAR-EC/IC/CE/IT/Elect-Question Bank

(Fundamental of Programming)

All questions carry equal marks (10 marks)

Q.1	Give the difference between object oriented language and procedure oriented language.
Q.2	What is Algorithm and Flowchart? Draw Flowchart and Write down an algorithm for finding Maximum number from two numbers.
Q.3	What is string? What are the operations that can be performed on string? Explain any 3 built-in strings functions with syntax and meaning.
Q.4	What is inline function? Explain with the example. Describe the properties of inline function.
Q.5	Define the following terms: Class, Object, Data Abstraction, Encapsulation, Inheritance, Polymorphism, Dynamic binding, Message passing, function overloading, operator overloading.
Q.6	What do you mean by Constant in C language? Explain various types of constants in detail. Also mention the difference between variable and constant.
Q.7	What do you mean by Operator? Explain different types of operator used in C language with the example.
Q.8	What is function? Explain different categories of functions with syntax and example. State the difference between user defined and built-in function.
Q.9	What is Structure? How to define a structure and structure variable? Also explain how to access structure variable? Compare structure and union.
Q.10	What is an array? What are the advantages to use array? Explain one dimensional, two dimensional and multidimensional arrays with example.
Q.11	Define branching statement? Explain Simple if statement, if-else statement and switch statement with its syntax and example.
Q.12	What do you mean by loop? Why the looping structures are needed? Explain various entry control and exit control loop with syntax and example.

Q.13	Write a short note on Scope, Visibility and life time of variables.
Q.14	Compare normal function and friend function. Explain the concept of friend function in detail.
Q.15	What is recursion? Write a 'c' program to find the factorial of a given number using recursion.
Q.16	What do you mean by Operator? Explain Operator Precedence and Associativity in C language with the example.
Q.17	Explain Break and Continue Keyword with the help of example.
Q.18	Explain the concept of Pointer with example.
Q.19	Explain File management in c language.
Q.20	Explain the concept of Dynamic memory allocation. Explain Malloc (), Calloc (), Free () and Realloc () function with its syntax.
Q.21	What is type conversion? Explain its types with example.
Q.22	What is the meaning of Token? Which are various types of tokens in C language? Explain each with example.
Q.23	List and explain various data types in C program with example.
Q.24	Draw the Block diagram of Computer System and explain.
Q.25	Write short notes on following. (i) File Operations in C. (ii) Categories of Functions.
Q.26	Write short notes on following: (i) Nested if..else statement. (ii) Use of break and continue statement.
Q.27	Explain the difference between "call by value" and "call by reference" with suitable examples.
Q.28	Define: Software, Hardware, Higher level Language, and Operating System.
Q.29	Write a program in C to generate Fibonacci series like following: 1, 1, 2, 3, 5, 8, 13 … Generate 20 such numbers.
Q.30	Explain how string is defined in C. Write user defined functions for the following: (i) strlen (): to find length of string. (ii) strcat (): to concate two strings.
Q.31	What is structure in C? Define a structure named "Student" with roll_no, name and percentage as members. Read data of 5 students from user and display them in proper format.
Q.32	What do you mean by constants in C language? Explain types of constants in detail. Also state the difference between variable and constant.
Q.33	Compare: Static Memory Allocation Vs. Dynamic Memory Allocation.
Q.34	State and explain formatted input-output statements and standard input-output statements with example.
Q.35	What do you mean by pre-processor directives? List and explain its different categories.
Q.36	Explain Function prototype, Function call and Function definition with the help of example.

Q.37	Explain the following terms:
	    1) Compiler
	    2) Loader
	    3) Linker
	    4) Interpreter

Q.38	What is Program? Give the Classification of Programming Language. Explain different types of programming language with advantage and disadvantage.
Q.39	What is Linked List? Write advantages of Linked List. Also explain Create, Insert and Delete operation on Singly Linked List.
Q.40	Write short note on the following terms: 1) Static Data Member 2) Static Member Function