Enrollment No: _____   Exam Seat No:_____

C. U. SHAH UNIVERSITY
Winter Examination-2022

Subject Name : Fundamentals of Computer Programming

Subject Code : 4TE01FCP1   **Branch: B.Tech (All)**

Semester: 1   **Date: 12/01/2023**   **Time: 11:00 To 02:00**   **Marks: 70**

Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**   **(14)**

   a)   What is the output of this statement "printf("%d", (a++))"?   1
           [A] The current value of a   [B] The value of (a + 1)
           [C] Error message   [D] Garbage value
   b)   How many times following loop will execute?   1
                    for(j = 1; j <= 10; j = j-1)
           [A] Never   [B] Forever   [C] 1   [D] 10
   c)   In the C language, the constant is defined _____.   1
           [A] After main   [B] Before main
           [C] Anywhere but starting on new line   [D] None of the above
   d)   Which one of the following is a loop construct that will always be executed at   1
           least once?
           [A] for   [B] switch   [C] while   [D] do..while
   e)   How many characters can a string hold when declared as follows?   1
                    char name[10];
           [A] 9   [B] 10   [C] 0   [D] None of the above
   f)   Directives are translated by the   1
           [A] Editor   [B] Pre-processor   [C] Compiler   [D] Linker
   g)   What does this statement mean? x -= y+1;   1
           [A] x = x-y+1   [B] x = -x-y-1   [C] x = x-y-1   [D] x=x+y-1
   h)   Who defines the user-defined function?   1
           [A] Computer   [B] Compiler   [C] Compiler Library   [D] User
   i)   Which of the following functions is already declared in the "header file"?   1
           [A] Built-in function   [B] User define function
           [C] C Function   [D] None of the above
   j)   Which of the following function is used to write the integer in a file?   1
           [A] getw()   [B] putw()   [C] int val   [D] f_int()
   k)   What type of data type does the atoi() function return?   1
           [A] string   [B] char   [C] interger   [D] float
   l)   Which of the following keyword is used for union in c language?   1

[A] un   [B] unt   [C] ion   [D] union

m) Study the following program fragment,   1

<div align="center">char ch='Z';</div>

What will be store in ch?
[A] 90   [B] 122   [C] 121   [D] Z

n) Which of the following variable name is correct in c language?   1
[A] for   [B] For   [C] Basic Salary   [D] hello

Attempt any four questions from Q-2 to Q-8

Q-2	**Attempt all questions**	**(14)**
A	Draw and explain block diagram of computer system.	**7**
B	Write algorithm and draw flowchart for finding maximum number from three numbers.	**7**
Q-3	**Attempt all questions**	**(14)**
A	What is operator? List-out types of operator. Explain any two with example.	**7**
B	Write a program using user define function to find area of circle.	**7**
Q-4	**Attempt all questions**	**(14)**
A	What is array? Explain different types of array with examples.	**7**
B	Write a program using loop to find sum of all even numbers from 1 to 100.	**7**
Q-5	**Attempt all questions**	**(14)**
A	What is structure and union? Explain with example.	**7**
B	Write a program to find sum of two numbers using pointer.	**7**
Q-6	**Attempt all questions**	**(14)**
A	What is file management in 'C'? Explain command line arguments in file management system in 'C' with example.	**7**
B	Write a program using recursion to find factorial of given number.	**7**
Q-7	**Attempt all questions**	**(14)**
A	Explain with example: malloc(), calloc(), free().	**7**
B	Write a program to find sum of 1 to 10 using goto.	**7**
Q-8	**Attempt all questions**	**(14)**
A	Explain switch case with example.	**7**
B	Write a program to copy contents of one file to another file.	**7**