C. U. SHAH UNIVERSITY
Winter Examination - 2022

Subject Name: Programming Basics using C Language

Subject Code: 4CS01IPC2   **Branch: B.Sc.I.T.**

Semester: 1   **Date: 02/01/2023**   **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.

Que-1 Attempt all the following MCQs.   **[14]**

1. C language was developed by _____
   a) Dennis Ritchie   b) Dennis Robert
   c) Dab Robert   d) None of these

2. In Turbo C Software, to run a C program _____ key is used.
   a) Ctrl + F8   b) Alt + F8   c) Ctrl + F9   d) None of these

3. Trigraph character consist of how many characters?
   a) 2   b) 3   c) 4   d) 1

4. Which is memory size of char data type?
   a) 1 Byte   b) 2 Byte   c) 4 Byte   d) 8 Byte

5. If a=10 and b=20 then, x = (a>b)? a : b What is values of x?
   a) 1   b) 10   c) 20   d) 30

6. Which is logical operator?
   a) >   b) >=   c) <   d) &&

7. Automatic conversion is known as _____ conversion.
   a) Implicit   b) Explicit   c) Both A and B   d) None

8. Which is shorthand operator?
   a) &&   b) >=   c) +=   d) None of these

9. To print float value _____ is used.
   a) %d   b) %f   c) %df   d) None of these

10. Which is valid variable name?
   a) my height   b) 2exam   c) _exam   d) None of these

11. Which of the following is not a valid storage class?
   a) static   b) extra   c) auto   d) register

12 Static variables are initialized to value _____, if not initialized explicitly.
   a) 1   b) null   c) 0   d) garbage value

13 Array index starts from _____.
   a) 0   b) 1   c) null   d) garbage value

14. In UDF full form, U stands for _____.
   a) User   b) Union   c) Unstructured   d) Use

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

Que-2 Attempt all questions.   **[14]**
   1. Write a note on basic structure of C program in detail.   [7]
   2. What is operator? Explain various operators available in c language.   [7]

Que-3 Attempt all questions.   **[14]**
   1. Write a C program find maximum number out of entered 2 numbers.   [7]
   2. Write a C program to check whether entered number is Armstrong or not.   [7]

Que-4 Attempt all questions.   **[14]**
   1. What is variable? Explain how to create and initialize it with syntax and example. [5]
   2. Discuss algorithm with example.   [5]
   3. Explain constant with example.   [4]

Que-5 Attempt all questions.   **[14]**
   1. Explain integer, float and char datatypes in detail.   [5]
   2. Explain switch statement with syntax and example.   [5]
   3. Discuss while loop statement with syntax.   [4]

Que-6 Attempt all questions.   **[14]**
   1. Explain one dimensional and two-dimensional array with example.   [7]
   2. Define string. Explain any five functions of <string.h> header file.   [7]

Que-7 Attempt all questions.   **[14]**
   1. What is UDF? Explain various categories of UDF.   [7]
   2. Explain various storage classes available in C language.   [7]

Que-8 Attempt all questions.   **[14]**
   1. Define language. Explain machine language in brief.   [5]
   2. Discuss if statement with syntax.   [5]

3. Explain any four functions of <math.h> header file. [4]