C. U. SHAH UNIVERSITY
Winter Examination - 2022

Subject Name: Programming in C

Subject Code: 4CS01TCP1   **Branch: B.Sc.I.T.**

Semester: 1   **Date: 02/01/2023**   **Time: 11:00 To 01:30**   **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) Who is the father of C language?
a) Steve Jobs   c) Dennis Ritchie
b) James Gosling   d) Rasmus Lerdorf

2) Which is valid C expression?
a) int my_num = 100,000;   c) int my num = 1000;
b) int my_num = 100000;   d) int $my_num = 10000;

3) What is the default return-type of getchar()?
a) char   d) reading character doesn't require a
b) int   return-type
c) char *

4) Which keyword is used to prevent any changes in the variable within a C program?
a) immutable   c) const
b) mutable   d) volatile

5) What is an example of iteration in C?
a) for   c) do-while
b) while   d) all of the mentioned

6) Which of the following is an exit-controlled loop?
a) while   c) do while
b) for   d) None of above

7) What is #include <stdio.h>?
a) Preprocessor directive   c) File inclusion directive
b) Inclusion directive   d) None of the mentioned

8) How many number of pointer (*) does C have against a pointer variable declaration?

a) 7

b) 127

c) 255

d) No limits

9) In C language, FILE is of which data type?

a) int

b) char *

c) struct

d) None of the mentioned

10) What is the sizeof(char) in a 32-bit C compiler?

a) 1 bit

b) 2 bits

c) 1 Byte

d) 2 Bytes

11) scanf() is a predefined function in_____header file.

a) stdlib. h

b) ctype. h

c) stdio. h

d) stdarg.

12) _____ converts the programs written in assembly language into machine instructions.

a) Machine compiler

b) Interpreter

c) Assembler

d) Converter

13) Which of the following typecasting is accepted by C language?

a) Widening conversions

b) Narrowing conversions

c) Widening & Narrowing conversions

d) None of the mentioned

14) C preprocessors can have compiler specific features.

a) True

b) False

c) Depends on the standard

d) Depends on the platform

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

Que-2 Attempt all questions. [14]
1) What is flowchart? Explain various symbols used in flowchart. [4]
2) Discuss break and continue statements with example. [5]
3) What is comment? Explain different types of comments in C language. [5]

Que-3 Attempt all questions. [14]
1) What is array? Explain one-dimensional array with example. [5]
2) What is variable? Enlist rules for declaring variable and also give example of it. [5]
3) Explain gets(), getche(), strlen(), isalnum() with example. [4]

Que-4 Attempt all questions. [14]
1) Discuss different operators available in C language. [7]
2) Explain if….else and switch statements with syntax and example. [7]

Que-5 Attempt all questions. [14]
   1) Discuss different data types available in C language. [7]
   2) Write a note on basic structure of C program. [7]

Que-6 Attempt all questions. [14]
   1) Explain for and do…while looping statements with syntax and example. [7]
   2) Define language. Explain machine and assembly languages in detail. [7]

Que-7 Attempt all questions. [14]
   1) Write a program to print following. [5]
      5
      54
      543
      5432
      54321
   2) Write a C program to print following. [5]
      12345
      2345
      345
      45
      5
   3) Write a C program to print factorial of entered no. [4]

Que-8 Attempt all questions. [14]
   1) Define UDF? Write a program to print "hello" message using UDF. [7]
   2) Write a note on: History of C. [7]