First/Second Semester B.E. Degree Examination, June/July 2016
Computer Concepts and ‘C’ Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing at least two from each part.
2. Use of steam tables is not permitted.

PART – A

1. a. Choose the correct answers for the following: (04 Marks)
i) Which of the following is not a type of computer based on individual usage?
   A) Desktop computer B) Workstation C) Digital computer D) Smart phone

   ii) Note book computer is also called as ______
       A) PDA’s B) Laptops C) Smart phones D) Tablet computer

   iii) Display system in table computer can be rotated by ______
         A) 60° B) 120° C) 90° D) 180°

   iv) One Terabyte = ______
       A) 1024 GB B) 1024 MB C) 1024 KB D) 1024 bytes

   b. Explain the basic structure of a computer along with a block diagram. (06 Marks)
   c. Explain the different types of audiovisual input devices. (10 Marks)

2. a. Choose the correct answers for the following: (04 Marks)
i) The capacity of a floppy disk is ______
   A) 2.44 MB B) 1.44 MB C) 2.48 MB D) 2.48 MB

   ii) Which of the following is an example of system software?
       A) MS - WORD B) Microsoft excel C) Text editor D) Payroll

   iii) In star topology the central computer is called
        A) Host B) Source C) Hub D) None

   iv) 1 byte = ___ Nibbles.
        A) 4 B) 2 C) 8 D) 1

   b. Explain how the data is organized in magnetic disk. (04 Marks)
   c. What is Operating system? Explain the types of operating system. (08 Marks)
   d. Mention the need for networking. (04 Marks)

3. a. Choose the correct answers for the following: (04 Marks)
i) Which of the following command is used to save the program?
   A) F3 B) Ctrl + V C) F2 D) Ctrl

   ii) Which of the following is a newline character?
       A) 't' B) '\f' C) '\b' D) '\n'

   iii) ______ format specifier converts the data into floating point value.
        A) % e B) % o C) % d D) % u

   iv) Which input function accept the string as input from the keyboard?
       A) getchar () B) gets () C) getch () D) getche ()

   b. Explain the basic data types available in C language. (08 Marks)
   c. Explain the formatted Input and Output function with example. (08 Marks)

4. a. Choose the correct answers for the following: (04 Marks)
i) Which of the following operator is R → L associativity.
   A) < B) + C) ^ D) =

   1 of 3
ii) What is the output of the following statement printf("%d \n", 12,345, 678)?
   A) 12         B) 12         C) 12,345       D) 12,345, 678

   iii) An expression with only one operand but not any operator is called
         A) Primary   B) Ternary   C) unary       D) Binary

   iv) If i = 3, j = 4, what is the value of j + 1 / i - 1.
         A) 2        B) 1        C) 4        D) 3

   b. Simplify the expression a += b *= c -= 5, where a = 1, b = 3, c = 7.

   c. Write a C program to find the area of a triangle given the 3 sides.

   d. Explain the increment and decrement operator with program.

   5 a. Choose the correct answers for the following:

   i) Which of the following header file is used if we use floor ( ) function :
      A) stdio.h  B) conio.h  C) math.h  D) stdlib.h

   ii) Which element of user defined function is not terminated by semicolon ( ; )
      A) function prototype   B) function definition
      C) function call         D) function declaration

   iii) Pass by value is also called as ______
         A) call by value
         B) call by reference
         C) function call
         D) function declaration

   iv) ______ type of variable is accessible through out the program
      A) local variable
      B) global variable
      C) static variable
      D) register variable

   b. Explain briefly the different methods of passing parameter.

   c. Write a C program to compute cube of a given number using functions.

   6 a. Choose the correct answers for the following:

   i) The complement of < is ______
      A) > =    B) <=   C) >    D) ==

   ii) What is the output of the following program segment

      # include<stdio.h>
      Void main ( )
      {
        int i = 10 ;
        while (0)
        {
          printf("%d", i ) ;
        }
      }

      A) 0  B) 10  C) No output times

   iii) Which of the following is valid :
      A) Case 4 :  B) Case "4" :  C) Case i + 2 :  D) Case ‘choice’ :

   iv) Which of the following loop is used when we do not know exactly how many times a

      set of statements have to be repeatedly executed.
      A) for   B) while    C) do while   D) switch

   b. Write a C program to find the roots of quadratic equation.

   c. Differentiate between while and do while loop with example.
7  a. Choose the correct answers for the following:
   i) Array always starts from index ________
      A) 1  B) -1  C) 0  D) 2
   ii) Linear search is also called as ________
       A) Binary search  B) Sequential search
       C) Traversal  D) Sort
   iii) The string “0” occupies ________ bytes
        A) 2 byte  B) 1 byte  C) 4 byte  D) 8 byte
   iv) In a variable length string, string always ends with a delimiter
        A) POS  B) POS - 1  C) NULL  D) NULL + 1
   b. Explain briefly the declaration and initialization of one dimensional array.
   c. Write a C program to count vowels and constants in a given string.

8  a. Choose the correct answers for the following:
   i) SET 1 stands for
      A) Search for extra terrestrial intelligence
      B) Search for extra topology intelligence
      C) Search for extraordinary terrestrial intelligence
      D) Search for extra typical intelligence
   ii) The concept of sharing of memory by various threads in program is called ________
       A) sharing memory  B) shared memory
       C) sequential memory  D) sorting memory
   iii) Which of the following directive is not used during synchronization of tasks
        A) barrier directive  B) include directive
        C) ordered directive  D) flush directive
   iv) Which of the function returns non zero value if dynamic adjustment is enable
        A) void Omp - get – dynamic (int dynamic _ thread)
        B) int Omp – get – dynamic ( )
        C) void Omp – get – nested (int nested)
        D) int Omp – get – nested ( )
   b. What is Thread? Explain the logical memory model of a thread.
   c. What are the various motivating factors of Parallel programs?