First/Second Semester B.E. Degree Examination, Dec.2018/Jan.2019
Computer Concept and C Programming

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, choosing at least two from each part.*

PART – A

1 a. Choose the correct answers for the following :   (04 Marks)
   i) Which of the following device stores instructions that help computer to start up?
      A) Monitor   B) ROM   C) RAM   D) Joystick
   ii) Which of the following is not an input device?
      A) Scanner   B) Keyboard   C) Plotter   D) Mouse
   iii) A megabyte (MB) is equivalent to _____
      A) 1024 TB   B) 1024 KB   C) 1024 MB   D) 1024 GB
   iv) ASCII value of 'A' is _____
      A) 97   B) 65   C) 66   D) 64

   b. Explain the different types of printers.   (10 Marks)
   c. With a neat diagram, explain the basic structure of a computer.   (06 Marks)

2 a. Choose the correct answers for the following :   (04 Marks)
   i) A magnetic disk's tracks are divided into smaller parts called
      A) slices   B) bytes   C) sectors   D) clusters
   ii) Acronym DOS stands for
      A) driver operating system   B) disk operating system
      C) distributed operating system   D) diskless operating system.
   iii) Which is a secondary memory device
      A) Cache   B) Registers   C) Floppy disk   D) RAM
   iv) Every web page has a unique address, called a
      A) HTTP   B) WWW   C) URL   D) Hyperlink

   b. What is operating system? Explain various functions of an operating system.   (08 Marks)
   c. With a neat diagram, briefly explain the different layers of OSI model.   (08 Marks)

3 a. Choose the correct answers for the following :   (04 Marks)
   i) Which of the following in not a valid identifier?
      A) MAX_10   B) NUM50   C) $Name   D) print
   ii) Which of the following is not a keyword in C?
      A) int   B) float   C) return   D) prime
   iii) C is a _____ language.
      A) Object oriented   B) Structured   C) Machine   D) Assembly
   iv) Step by step procedure to solve a given problem is called
      A) Logarithm   B) Flow chart   C) Algorithm   D) Program

   b. Explain the structure of a C program.   (06 Marks)
   c. Explain formatted input and output functions.   (06 Marks)
   d. Explain basic datatypes available in C.   (04 Marks)

4 a. Choose the correct answers for the following : **(04 Marks)**

    i) _____ is used to determine the order in which different operations in an expression are evaluated.

       A) Evaluation   B) Precedence   C) Associativity   D) format

    ii) The operator % yields

       A) Quotient   B) Percentage   C) Fractional part   D) Remainder

    iii) If $x = 20$, then value of x^{++}

       A) 21   B) 20   C) 19   D) – 20

    iv) Keywords are _____.

       A) Variable   B) Identifier   C) Reserved words   D) None.

  b. Write a program to print Least Significant digit of an integer. **(06 Marks)**

  c. Explain the following with examples: **(06 Marks)**

    (i) Type conversion   (ii) Compound statement

  d. With examples, illustrate any four common programming errors. **(04 Marks)**

PART – B

5 a. Choose the correct answers for the following : **(04 Marks)**

    i) Which of the following will not be terminated by semicolon sign?

       A) Function prototype   B) Function calling

       C) Function definition   D) None of these

    ii) The main( ) is a

       A) library function   B) User defined function

       C) Keyword   D) None of these

    iii) The scope of the variable defined in a function is

       A) Local   B) Modular   C) Global   D) Universal

    iv) The parameters used in function prototype are called _____ parameters.

       A) Formal   B) Dummy   C) Actual   D) None of these

  b. Write a program to find GCD of two numbers by using function. **(06 Marks)**

  c. Explain different types of passing parameters to the functions. **(10 Marks)**

6 a. Choose the correct answers for the following : **(04 Marks)**

    i) Operator used in logic OR is

       A) &   B) !   C) ::   D) &&

    ii) Multiway decision making using _____.

       A) while   B) for   C) if   D) switch

    iii) The correct statement for checking a condition in if statement is

       A) if (a = b)   B) if (a == b)   C) if (a, b)   D) if (a b)

    iv) Which of the following command will place the program control out of the loop when it gets executed?

       A) goto   B) Break   C) exit   D) continue

  b. Distinguish between while and do-while statements, with one example each. **(08 Marks)**

  c. Explain the logical operators used in C. **(08 Marks)**

7 a. Choose correct answers for the following : **(04 Marks)**

    i) Which of the following is not a data structure?

       A) Queue   B) pointer   C) stack   D) Linked list.

ii) The process through which data arranged according to their values is known as
A) listing   B) Searching   C) Sorting   D) Arranging

iii) The _____ search locates the target item by starting at the beginning and moving towards end of the list.
A) selection   B) binary   C) ascending   D) sequential

iv) If a[5] is a declaration, then first and last array index will be
A) 1, 5   B) 1, 6   C) 0, 4   D) 0, 5

b. Explain declaration and initialization of arrays with example.   **(08 Marks)**

c. Explain the following string handling functions:
(i) strlen   (ii) strcat   (iii) strcpy   (iv) strcmp   **(08 Marks)**

8   a. Choose the correct answers for the following :   **(04 Marks)**

i) Which of the following is not a synchronization construct?
A) master   B) section   C) critical   D) single

ii) _____ execution of instructions in a computer system is referred to as parallel computing.
A) Serial   B) Sequential   C) Accurate   D) Single

iii) Which of the following open Mp environmental variables enables or disables nested parallelism?
A) omp_set_next   B) omp_get_nested   C) omp_nested   D) none of these

iv) Open MP stands for _____
A) Open multi_parallelism   B) open multi_processing
C) organized multi_programming   D) Organized multi_parallelism

b. Explain the data handling in openMP.   **(08 Marks)**

c. Briefly explain the different Application areas of parallel computing.   **(08 Marks)**

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