USN ☐☐☐☐☐☐☐☐☐☐   06CCP13/23

First/Second Semester B.E. Degree Examination, June / July 08
Computer Concepts and 'C' Programming

Time: 3 hrs.   Max. Marks:100

Note : *Answer any FIVE full questions,*
selecting atleast two from each part.

PART - A

1 a. Differentiate between analog and digital computers.   (05 Marks)
   b. With the help of block diagram explain the different functional units of digital computer.
                                                                             (10 Marks)
   c. What is an assembler? How does it differ from a compiler?   (05 Marks)

2 a. Explain the following storage devices with figure.
         i) Magnetic tape   ii) Magnetic disk.   (10 Marks)
   b. Briefly discuss the following :
         i) USB   ii) SCSI.   (05 Marks)
   c. Differentiate between primary memory and secondary memory.   (05 Marks)

3 a. Define operating system. What are the primary functions of the operating system?
                                                                             (08 Marks)
   b. Define the following terms. HUB, BRIDGE, SWITCH and ROUTER.   (08 Marks)
   c. What is network? What are various types of topologies?   (04 Marks)

PART – B

4 a. What is the meaning of algorithm? Give its characteristics.   (06 Marks)
   b. List out rules to be followed for defining variable. Give one example for each rule with
      invalid case.   (08 Marks)
   c. Write program to find the greatest of 3 numbers using conditional operator. (06 Marks)

5 a. Write a note on :
         i) Break statement   ii) Continue statement   (04 Marks)
   b. Write a program to find the roots of a quadratic equation using switch statement. (10 Marks)
   c. What are the verities of if statement? Explain any two.   (06 Marks)

6 a. Differentiate between while and do-while statement.   (05 Marks)
   b. Using do-while, write a program to generate N prime numbers.   (10 Marks)
   c. With general syntax explain any three forms of for statement.   (05 Marks)

7 a. With an example explain how the elements of two dimensional array is stored in row major
      and column major order, if the base address is 4000 and size of integer is 2 bytes.
                                                                             (05 Marks)
   b. Write a program to sort the elements of an array in ascending order by selection sort.
                                                                             (10 Marks)
   c. What are the advantages and disadvantages of binary search?   (05 Marks)

8 a. What is a function? What are its advantages?   (05 Marks)
   b. What are the different ways of passing parameters to the functions? Explain. (05 Marks)
   c. Write functions to perform the following :
         i) To find the length of the string
         ii) To check whether the string is palindrome or not.   (10 Marks)

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