R—345—2017

FACULTY OF COMPUTER SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

APRIL/MAY, 2017

(CBCS Pattern)

COMPUTER SCIENCE

Paper I (BSCIT001)

(Problem Solving Using Computers)

(MCQ & Theory)

(Wednesday, 3-5-2017)   **Time : 10.00 a.m. to 12.00 noon**

Time—2 Hours   *Maximum Marks—40*

N.B. :—   (i)   All questions are compulsory.

         (ii)   Draw neat and labelled diagram wherever necessary.

         (iii)   Assume suitable data wherever necessary.

MCQ

1. Solve *all* MCQs given below :   10

   (i)   .... is used to change value of variable.

      (a)   >   (b)   : =

      (c)   < =   (d)   > =

   (ii)   Factorial of 0 (zero) is ....

      (a)   1   (b)   0

      (c)   3   (d)   11

   (iii)   The smallest divisor of prime no. is ....

      (a)   2   (b)   3

      (c)   1   (d)   0

                                              P.T.O.

(iv) ◊ symbol is used in flow chart for ....

    (a) I/O   (b) Loop

    (c) End   (d) Condition

(v) Algorithm is a set of ....

    (a) Numbers   (b) Conditions

    (c) Instructions   (d) Loops

(vi) In .... series next no. is addition of previous two numbers.

    (a) Array   (b) Fibonacci

    (c) Prime   (d) Factorial

(vii) .... is called as repetition.

    (a) Function   (b) Array

    (c) Counting   (d) Loop

(viii) .... is an array of 5 element.

    (a) A[5]   (b) 4

    (c) 3   (d) A[0]

(ix) .... is an array order reversal technique.

    (a) descending   (b) ascending

    (c) reverse   (d) factorial

(x) If $n/2$ leaves remainder 1, then it is ....

    (a) even   (b) 2

    (c) odd   (d) 4

Theory

2. (a) What is array ? Explain types of array in detail.   10

Or

(b) Explain input devices.   5

(c) Write an algorithm for binary search.   5

3. (a) Explain TOP down design in detail. 10

Or

(b) Write an algorithm for GCD of two integer. 5

(c) Write an algorithm to exchange the value of two variables. 5

4. (a) What is sorting ? Explain bubble sort and selection sort in detail. 10

Or

(b) Write short notes on I/O ports. 5

(c) Write an algorithm for finding the square root of number. 5