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W—398—2018

FACULTY OF COMPUTER STUDIES

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

NOVEMBER/DECEMBER, 2018

(CBCS Pattern)

COMPUTER SCIENCE

Paper I (BSC-IT-001)

(Problem Solving Using Computers)

(MCQ & Theory)

(Friday, 7-12-2018)

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) Find the missing number in series 0, 1, 1, 2, 3, 5,, 13.
 - (a) 8 (b) 7
 - (c) 10 (d) 6
 - (ii) is a collection of same type of data element.
 - (a) Loop (b) Prime
 - (c) Array (d) Fibonacci
 - (iii) Factorial of $6(6!)$ is :
 - (a) 120 (b) 720
 - (c) 6 (d) 0
 - (iv) is called as repetition.
 - (a) Array (b) Loop
 - (c) Factorial (d) Instructions

P.T.O.

- (v) is an output device.
- (a) Mouse (b) Joystick
(c) CPU (d) Printer
- (vi) If $n/2$ leaves remainder “0”, then it is a number.
- (a) Odd (b) Prime
(c) Even (d) Zero
- (vii) is called as subscripted variable.
- (a) $3[x]$ (b) $x[2]$
(c) $[x]$ (d) $[3]$
- (viii) The largest division of no. is itself.
- (a) Prime (b) Even
(c) Odd (d) Whole
- (ix) The diagrammatical representation of a program is called :
- (a) Program (b) Algorithm
(c) Symbol (d) Flow chart
- (x) The symbol is used to end.

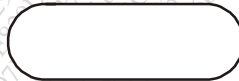
(a)



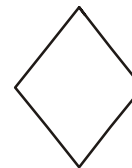
(b)



(c)



(d)



Theory

2. (a) Explain Top-down design in detail.

10

Or

- (b) Explain the characteristics of computer. 5
- (c) Explain scanner in detail. 5
3. (a) What is searching ? Explain Linear and Binary search with example. 10

Or

- (b) Explain analysis of algorithm. 5
- (c) Write an algorithm for array counting. 5
4. (a) Define Computer. Explain input and output devices in detail. 10

Or

- (b) Explain selection sort with suitable example. 5
- (c) Write an algorithm for generation of prime numbers. 5