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**V—342—2017**

**FACULTY OF COMPUTER STUDIES**

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

**NOVEMBER/DECEMBER, 2017**

**(CBCS Pattern)**

**COMPUTER SCIENCE**

**Paper I**

**(Problem Solving using Computers)**

**(MCQ + Theory)**

**(Tuesday, 12-12-2017)**

**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 MCQ given below :

10

(1) The summation of 1 to N is calculated as .....

- (A)  $1 - 2 - 3 \dots\dots\dots N$
- (B)  $1 + 2 + 3 \dots\dots\dots N$
- (C)  $1 + 2 - 3 + \dots\dots\dots N$
- (D)  $1 - 2 - 3 + \dots\dots\dots + N$

(2) Float value is also called ..... value.

- (A) fact (B) real
- (C) int (D) char

(3) The set of instruction is .....

- (A) Program (B) Logic
- (C) Flow (D) Connector

P.T.O.

- (4) Factorial of 4 (4!) = .....
- (A) 4 (B) 0  
(C) 24 (D) 1
- (5) Algorithm is a set of .....
- (A) Numbers (B) Digits  
(C) Loops (D) Instructions
- (6) The largest divisor of prime number is .....
- (A) Zero (B) 4  
(C) Itself (D) One
- (7) ..... is a not equal operator.
- (A) < > (B) > <  
(C) := (D) > >
- (8) Pictorial representation of algorithm is .....
- (A) Image (B) Flowchart  
(C) Movie (D) Picture
- (9) Array is collection of ..... data type elements.
- (A) differt (B) int  
(C) float (D) same
- (10) Square of 12 is .....
- (A) 144 (B) 134  
(C) 164 (D) 21

### Theory

2. (a) What is flowchart ? Explain the symbols used for flowchart. 10

Or

- (b) Explain top down design. 5
- (c) Explain I/O ports. 5

3. (a) What is Computer ? Explain input and output devices of computer in detail. 10

Or

(b) Write the algorithm for binary search. 5

(c) Write the algorithm to counting numbers. 5

4. (a) What is array ? Explain memory representation of array in detail. 10

Or

(b) Write the algorithm on GCD of two numbers. 5

(c) Write the algorithm on summation of set of numbers. 5