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**AO—339—2018**

**FACULTY OF COMPUTER STUDIES**

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

**MARCH/APRIL, 2018**

**COMPUTER SCIENCE**

**Paper I**

**(Problem Solving Using Computers)**

**(MCQ+Theory)**

**(Thursday, 26-4-2018)**

**Time : 10.00 a.m. to 12.00 noon**

*Time—2 Hours*

*Maximum Marks—10+30*

*N.B. :— (i) Attempt all questions.*

*(ii) Assume suitable data if necessary.*

**(MCQ)**

1. Solve all MCQ's given below : 10

(i) The largest division of ..... no. is itself.

(a) even

(b) odd

(c) prime

(d) whole

(ii) If  $\frac{n}{2}$  leaves remainder "0" then  $n$  is .....

(a) odd

(b) even

(c) prime

(d) whole

(iii) 5040 is a factorial of .....

(a) 7

(b) 8

(c) 6

(d) 9

P.T.O.

- (iv) Algorithm is a set of .....
- (a) symbols (b) integers  
(c) instructions (d) numbers
- (v)  symbol is used in flowchart for .....
- (a) I/O (b) loop  
(c) start (d) decision
- (vi) SRAM is ..... Random Access Memory.
- (a) Static (b) Sort  
(c) Sink (d) State
- (vii) Scanner is ..... device.
- (a) input (b) output  
(c) CPU (d) ALU
- (viii) ..... KB = 2 MD.
- (a) 1024 (b) 2048  
(c) 2000 (d) 1000
- (ix)  $n!$  is calculated as .....
- (a)  $n \times o$  (b)  $0 \times 1 \times 2 \dots \dots \times n$   
(c)  $1 \times 2 \times 3 \times \dots \dots \times n$  (d)  $0 \times 2 \times 3 \times \dots \dots \times 10$
- (x) Array is collection of ..... type.
- (a) Different (b) Integral  
(c) Float (d) Same

**(Theory)**

2. (a) Define computer. Explain the block diagram of a computer. 10

*Or*

(b) Explain Linear search with example. 5

(c) Write an algorithm for array counting. 5

3. (a) Define flowchart. Explain flow chart symbol with suitable example. 10

*Or*

(b) Write an algorithm for Fibonacci numbers (series). 5

(c) Write an algorithm for GCD. 5

4. (a) Write an algorithm for finding maximum and minimum element from array. 10

*Or*

(b) Write an algorithm for counting numbers. 5

(c) Explain binary search with suitable example. 5