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**BF—362—2016**

**FACULTY OF COMPUTER STUDIES**

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

**OCTOBER/NOVEMBER, 2016**

**(CBCS Pattern)**

**COMPUTER SCIENCE**

**Paper I (BSCIT001)**

**(Problem Solving Using Computers)**

**(MCQ + Theory)**

**(Thursday, 1-12-2016)**

**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

(i) ..... is called as subscripted variable.

(A)  $x[2]$

(B)  $1[x]$

(C)  $[1]x$

(D)  $[x]$

(ii) The number which is divisible by 1 and itself only is ..... number.

(A) odd

(B) even

(C) prime

(D) reverse

(iii) 720 is factorial of .....


(A) 3

(B) 6

(C) 5

(D) 15

P.T.O.

- (iv)  symbol is used in flow chart for .....
- (A) start (B) condition  
(C) end (D) I/O
- (v) Find the missing number in series 0, 1, 1, 2, 3, 5, 8, 13 ..... 34
- (A) 15 (B) 16  
(C) 21 (D) 29
- (vi) Application is also called as .....
- (A) program (B) software  
(C) input (D) output
- (vii) ..... is an input device.
- (A) printer (B) CPU  
(C) scanner (D) monitor
- (viii) GCD stands for ..... common divisor.
- (A) Great (B) Gold  
(C) Garbage (D) Greatest
- (ix) ..... representation of algorithm is a flow chart.
- (A) numeric (B) pictorial  
(C) textual (D) fragmental
- (x) ..... is a collection of same data type element.
- (A) Array (B) Loop  
(C) Condition (D) Solve

### Theory

2. (a) What is searching ? Explain linear search and binary search with suitable example. 10
- Or*
- (b) Explain characteristics of computer. 8
- (c) Write an algorithm for generating Fibonacci series. 5

3. (a) What is computer ? Draw and explain the block diagram of computer in detail. 10

*Or*

- (b) Write an algorithm for reverse digits of an integer. 5  
(c) Write an algorithm to prime factor. 5
4. (a) What is array ? Write an algorithm for finding maximum number from given 10 numbers from array. 10

*Or*

- (b) Explain analysis of algorithm. 5  
(c) Write an algorithm for factorial computations. 5