S. S. JAIN SUBODH P.G.(AUTONOMOUS) COLLEGE, JAIPUR

Affiliated to University of Rajasthan, Jaipur
I CIA BCA IV Semester Test ,Feb - 2018
Data Structure & Algorithms

Max. Marks: 30   **Duration: 1 Hour**

Instructions to the Candidates
Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)
Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) What are String Operations? Explain any one of them with algorithm.

(2) What is Array? Write an algorithm to insert an element into an array.

(3) Write short note on :
      (a) Data structure
      (b) Abstract data type
      (c) Pseudo code

Section B

(4) What is an Algorithm ? Explain how complexity of an algorithm can be measured?

OR

Write an algorithm to sort an array of n elements through Bubble Sort Technique. Explain it with an example.

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I CIA BCAIV Semester Test,Feb.2018
PHP PROGRAMMING

Max. Marks: 30   **Duration:** 1 Hour

Instructions to the Candidates

Note:-**Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) Differentiate between client side and server side programming.

(2) Explain data types available in PHP.

(3) Explain the purpose of switch statement with suitable example.

Section B

(4) Explain different iterative (looping) statements in PHP.

OR

Discuss various operators available in PHP.

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I CIA BCA IV Semester Test, Feb. 2018
Advanced Database Concepts

Max. Marks: 30

Duration: 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) What do you mean by Transaction ? Define transaction state with suitable diagram.

(2) Explain Conflict Serializability in detail.

(3) Explain time-stamp based protocol.

Section B

(4) What is Deadlock ? How it can be detected, handled and recovered ? Explain with suitable example .

OR

Write short note on the following (any two) :

(a) Recoverability of transaction

(b) Lock Based Protocol

(c) ACID Properties

S. S. JAIN SUBODH P.G.(AUTONOMOUS) COLLEGE, JAIPUR
Affiliated to University of Rajasthan, Jaipur
I CIA BCA IV Semester Test, Feb. 2018
Data Communication & Networking

Max. Marks: 30   **Duration:** 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) What is Networking ? Explain its advantages and disadvantages.

(2) Explain LAN and WAN in detail.

(3) Explain Peer to Peer to Client-Server Architecture.

Section B

(4) What do you mean by Topology ? Explain different topologies with diagram.

OR

Explain different components required in networking.