

Subject : Fundamentals of Information Technology

**B.C.A. - I / II / III**

Day : Thursday

Date : 19/11/2015

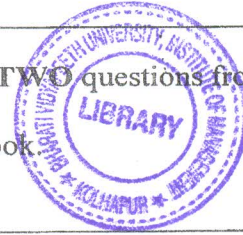


Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

**N.B.**

- 1) Answer any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Both sections should be written in the **SAME** answer book.
- 3) Figures to the **RIGHT** indicate full marks.



**SECTION - I**

- Q.1** What is data processing? Differentiate between data and information. Draw a block diagram to explain data processing in computers. (15)
- Q.2** What is primary storage and secondary storage? Explain the advantages and disadvantages of the both. (15)
- Q.3** Differentiate between the following: (15)
- a) Multitasking Vs Multiprogramming
  - b) Application software Vs System software
  - c) Compiler Vs Assemblers
- Q.4** Explain any two Input and Output devices with appropriate diagrams. (15)
- Q.5** Explain following terms with respect to Magnetic Disk: (15)
- i) Track                      ii) Cylinder                      iii) Sector
  - iv) Seek time                      v) Latency time
- Q.6** What is a System Software? How it is different from an Application Software? Explain with examples. (15)
- Q.7** Write short notes on any **THREE** of the following: (15)
- a) Time-sharing Operating System
  - b) Database Management System
  - c) Assembly Language
  - d) WINDOWS-NT

**SECTION - II**

- Q.8** What is File Organization? What are the three types of file organizations used commonly in business data processing? (20)
- Q.9** Convert the following Hexadecimal numbers into decimal numbers: (20)
- i) (9A2D)<sub>16</sub>      ii) (12CF)<sub>16</sub>      iii) (FFFF)<sub>16</sub>      iv) (3BAC)<sub>16</sub>      v) (40BD)<sub>16</sub>
- Q.10** Define Network topology. Explain different types of network topologies with appropriate diagrams. (20)

Subject : Database Management Theory

**B.C.A. - I / II / III**

Day : Saturday

Date : 21/11/2015

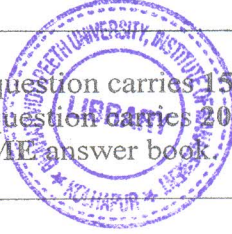


Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

N.B.:

- 1) Attempt any **FOUR** questions from Section –I. Each question carries 15 marks.
- 2) Attempt any **TWO** questions from Section –II. Each question carries 20 marks.
- 3) Answers to both the sections should be written in **SAME** answer book.



SECTION-I

- Q.1 Define database. Explain the characteristics and users of database system.
- Q.2 Explain 3 tier architecture of Database Management System. Discuss how it helps to achieve data independence.
- Q.3 What is data model? Explain Hierarchical, Network and Relational data model in detail.
- Q.4 What is hashing? Explain static hashing and dynamic hashing in detail.
- Q.5 What is a Deadlock? Explain Wait –Die and Wound- Wait approach for deadlock handling in detail.
- Q.6 Explain the need for recovery mechanism in database management systems. Discuss Log Based recovery scheme in detail.
- Q.7 Write short notes on the following:
- a) DBA
  - b) Types of Attributes
  - c) Mapping Cardinalities

SECTION-II

- Q.8 Construct an ER- Diagram for Hospital Management System.
- Q.9 Normalize the following data upto 3NF.  
Order\_Number, Order\_Date, Customer\_Number, Item\_Number, Item\_Name, Quantity, Unit\_Price, Bill\_Amount.
- Q.10 What is Relational Algebra? Explain the various relational algebra operators with example.

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Subject : C Programming - I

B.C.A. - I / II / III

Day : Tuesday

Date : 24/11/2015



26309

Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

**N.B.:**

- 1) Attempt any **FOUR** questions from Section -I and any **TWO** questions from Section -II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the section should be written in **SAME** answer book.
- 4) Assume suitable data, if necessary.

**SECTION - I**

- Q.1** Why we use functions? Explain call by value concept with an example. (15)
- Q.2** Define an Array. Explain one dimensional and two dimensional array with respect to its memory allocation. (15)
- Q.3** Define string. Explain various string library functions. (15)
- Q.4** Enlist various Iteration statements in C. Explain while loop with an example. (15)
- Q.5** Explain structure of C program with an example. (15)
- Q.6** Explain relational and arithmetic operators with suitable examples. (15)
- Q.7** Write short notes on Any **TWO**: (15)
- a) Storage classes
  - b) Precedence and associativity
  - c) switch case statement

**SECTION-II**

- Q.8** a) Write a C program to check whether a given numbers is prime or not. (10)
- b) Write a C program to display all numbers between 1 and 100 which are divisible by 7. (10)
- Q.9** Write a menu driven program in C using functions to calculate square, cube and square root of given number. (20)
- Q.10** a) Write a function pallindrome() to check whether a given number is pallindrome or not. (15)
- b) Write a C program to calculate  $a^b$ , where a and b are entered through the keyboard. (05)



Subject : Principles of Management

**B.C.A. - I / II / III**

Day : Friday

Date : 27/11/2015



26310

Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

N.B:

- 1) Solve ANY FOUR questions from Section-I.
- 2) Solve ANY TWO questions from Section-II.
- 3) Figures to the right indicate FULL marks.



SECTION-I

- Q.1 Define the Management. Explain various functions of Management. (15)
- Q.2 Explain salient aspects of Scientific Management Age. (15)
- Q.3 What do you understand of planning? Illustrate different types of plan. (15)
- Q.4 Explain the concept of Authority and Responsibility. (15)
- Q.5 Explain the difference between Positive and Negative Motivation. (15)
- Q.6 Explain the concept of financial control with suitable examples.
- Q.7 Write Short Notes on ANY TWO of the following: (15)
- a) Decision making
  - b) Social Responsibility of Management
  - c) Leadership

SECTION-II

- Q.8 Explain in detail various forms of organization. (20)
- Q.9 Discuss the sources and procedure for recruitment for a manufacturing organization. (20)
- Q.10 "Management is getting things done through others". Comment. (20)