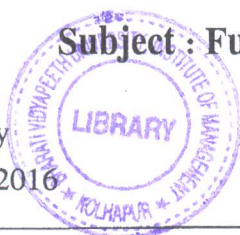


B.C.A. - I / II / III

Subject : Fundamentals of Information Technology

Day : Monday

Date : 07/11/2016



32268

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 the sections should be written in the **SAME** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Define a Computer? List and explain important characteristics of a computer. (15)
- Q.2** Define Operating System? What are the various functions of Operating System? Compare Windows and Linux Operating System. (15)
- Q.3** What is Network? Explain types of network with its advantages and limitations. (15)
- Q.4** What is an input device? List all input devices and explain any two from various input devices. (15)
- Q.5** Explain different data transmission media in detail. (15)
- Q.6** What are random access storage devices? Write example of few application for which such storage devices are suitable. (15)
- Q.7** What are programming languages? Explain machine level language with advantages and disadvantages. (15)

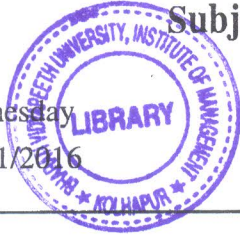
SECTION – II

- Q.8** Convert the following numbers to decimals: (20)
i) $(3B)_{16}$ ii) $(127)_8$ iii) $(110110111)_2$ iv) $(92D)_{16}$ v) $(654)_8$
- Q.9** What is modem? Explain the working of modems with an example. (20)
- Q.10** Write short note on any **FOUR** of the following: (20)
- a) Compiler and interpreters
 - b) Primary storage devices
 - c) Applications of computer
 - d) Impact printer
 - e) Floppy disk

* * *

Day : Wednesday

Date : 09/11/2016



32269

Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

N.B.:

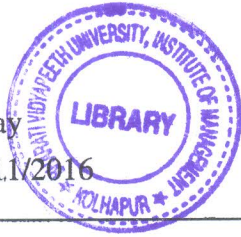
- 1) Attempt **ANY FOUR** questions from Section – I and attempt **ANY TWO** questions from Section – II.
- 2) Answers to both the sections should be written in the **SAME** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Define DBMS. Explain with suitable example data processing and data management. [15]
- Q.2** Draw and explain in detail three tier architecture of DBMS with neat diagram. [15]
- Q.3** Differentiate between HDB and NDB. [15]
- Q.4** Mention the purpose of indexing. How indexing can be done using B + tree? Explain. [15]
- Q.5** What is concurrency control? Explain in detail need for concurrency control. [15]
- Q.6** What are different types of failures? Explain any one technique of log based recovery with example. [15]
- Q.7** Write short notes on **ANY TWO** of the following: [15]
- a) ACID properties
 - b) Starvation
 - c) Hashing

SECTION – II

- Q.8** Draw and explain ER diagram for Railway reservation system. [20]
- Q.9** Normalize the following database upto 3NF. [20]
Empno, employeenname, date of joining, dept. no., dept name, salary, skill id, skill description, project no., project name.
(Note : one employee can have many skills and works on only one project at a time).
- Q.10** What is Data Administration? Explain role and responsibility of DBA. [20]



B.C.A. - I / II / III
Subject : C Programming - I

Day : Friday

Date : 11/11/2016



Time : 02.00 PM TO 05.00 PM

Max Marks : 100 Total Pages : 1

N.B.

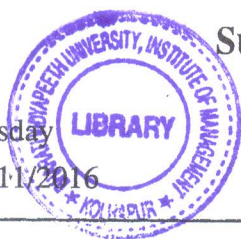
- 1) Attempt any **FOUR** questions from Section – I. Each question carries **15** marks.
- 2) Attempt any **TWO** questions from Section – II. Each question carries **20** marks.
- 3) Answers to both the sections should be written in the **SAME** answer book.

SECTION – I

- Q.1** a) Explain natural languages and computer languages. (07)
b) Describe types of errors. (08)
- Q.2** What are decision statements in C? Explain if – else statement with an example. (15)
- Q.3** Define operator. Explain different types of operators in C. (15)
- Q.4** Explain in brief various storage classes in C. (15)
- Q.5** Define an array. Differentiate between one dimensional and two dimensional arrays. (15)
- Q.6** What is a function? Explain function declaration, function definition, function call and function parameters in brief. (15)
- Q.7** Write short notes on any **TWO**: (15)
a) switch case
b) String manipulation functions
c) Formatted input and output functions

SECTION - II

- Q.8** Write a C program using function IsPrime() to check whether a given parameter is prime or not. (return 0 if prime and 1 if not) (20)
- Q.9** a) Write a C program to input a five digit number and display its last and first digit. (10)
b) Write a C program to check whether a given number is odd or even. (10)
- Q.10** Write a C program to display all array elements in ascending order using sorting technique. (20)



Subject : Principles of Management

Day : Tuesday

Date : 15/11/2016



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 attempt **ANY TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Both the sections should be written in the **SAME** answer book.

SECTION - I

- Q. 1 What are the essentials of an effective control system? Discuss with examples, (15)
modern methods of control.
- Q. 2 Write in detail a note on the Evolution of Management. (15)
- Q. 3 What is meant by Motivation? Differentiate, with appropriate examples (15)
'between positive and negative motivation.
- Q. 4 State different sources of recruitment highlighting suitability of each such a (15)
source of recruitment.
- Q. 5 Discuss the concept of social responsibility of management in the present (15)
environment.
- Q. 6 What is meant by Planning? Discuss the steps involved in the planning (15)
process.
- Q. 7 Write short notes on **ANY THREE** of the following: (15)
- a) Management V/S Administration
 - b) Leadership functions and qualities
 - c) Essential elements of an organization
 - d) Decision Making
 - e) Types of Plans

SECTION - II

- Q. 8 In a recent meeting of Department Heads it was revealed that there is a lack of (20)
motivation amongst supervisory staff. Prepare a plan as a HR head on how to
motivate the said supervisory staff?
- Q. 9 Off late your organization has noticed that your customers are not satisfied (20)
with the quality of goods purchased by them. State how will you proceed to
ensure that the goods dispatched shall not lack on set Quality Standards.
- Q.10 You intend to send a batch of fresh BCA candidates as trainees to your new (20)
'branch to be opened next year in Assam. Prepare in detail a suitable
recruitment plan.