



AMOOOR-I (CBCS - 2014 COURSE) : WINTER 2014
SUBJECT : FUNDAMENTALS OF IT

Day : Monday
Date : 10-11-2014

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

Time : 10.00 A.M. To 1.00 P.M.
Max. Marks : 100.

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** Draw a block diagram to illustrate basic organization of computer system and explain the functions of various units. (15)
- Q.2** What is "Generation" in computer terminology? Explain various generations along with key characteristics of computers in each generation. (15)
- Q.3** What is the purpose of primary storage in computer? List and explain various types of primary storage. (15)
- Q.4** Differentiate between the following: (15)
- a) Application software Vs System software
 - b) Batch processing Vs Time sharing
 - c) Half duplex Vs Full duplex
- Q.5** Define high level language and low level language with an example. What are the advantages and disadvantages of high level language over low level language? (15)
- Q.6** Define operating system. What are the various functions of O.S.? Compare windows and Linux operating system. (15)
- Q.7** Write short notes on the following: (15)
- a) Word processing software
 - b) Modem
 - c) Network topology.

SECTION-II

- Q.8** Convert the following decimal number into binary, octal and hexadecimal. (20)
- a) $(435)_{10}$
 - b) $(32)_{10}$
 - c) $(169)_{10}$
 - d) $(135)_{10}$
- Q.9** What is file? Explain different file organization schemes in brief. (20)
- Q.10** Explain different types of network with their applications. (20)



AMOR – I (2014 COURSE): WINTER 2014 (CBCS)
SUBJECT : DATABASE MANAGEMENT THEORY

Day : Tuesday
Date : 11-11-2014

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

Time : 10.00 A.M. To 1.00 P.M.
Max. Marks : 100

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 **SAME** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** What is DBMS? What is RDBMS? What is different between DBMS and RDBMS? [15]
- Q.2** What is Data Modeling? What are advantages and disadvantages of Data Modeling? [15]
- Q.3** Explain the following terms related to E – R Diagram: [15]
- a) Strong entity
 - b) Weak entity
 - c) Cardinality
 - d) Degree
 - e) Composite Entity
- Q.4** Explain the following keys with example: [15]
- a) Primary
 - b) Secondary
 - c) Composite
 - d) Candidate
 - e) Foreign
- Q.5** Explain the following relational algebra operations: [15]
- a) Select
 - b) Project
 - c) Join
 - d) Union
 - e) Intersection
- Q.6** Explain Deadlock and its handling. [15]
- Q.7** Write short notes on **ANY TWO** of the following: [15]
- a) Properties of a transaction
 - b) Database Users

SECTION – II

Q.8 Consider the following database of relations.

Student (sno, name, address, major)

Course (code, title)

Registered (ssn, code)

Solve the following algebraic relations:

- a) List the code of courses in which at least one student is registered. [02]
- b) List the codes of the courses for which no student is registered. [03]
- c) The titles of courses for which no student is registered. [03]
- d) Names of students and the titles of courses they registered to. [03]
- e) Ssn's of students who are registered for both 'Database Systems' and 'Analysis of Algorithms'. [03]
- f) Ssn's of students who are registered for 'Database Systems' or 'Analysis of Algorithms'. [03]
- g) List of courses in which all students are registered. [03]

Q.9 Draw E – R Diagram for Hospital Management System. [20]

Q.10 Write short notes on **ANY THREE** of the following: [20]

- a) Logical view of Data
- b) Object oriented Data Modeling
- c) Join, inner join and outer join
- d) Recovery with concurrent transaction
- e) Data security principles

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AMMOR – I (2014 COURSE): WINTER – 2014
SUBJECT: C- PROGRAMMING – I

CCBCS)

Day: Wednesday
Date: 12-11-2014

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

Time: 10.00 A.M. To 1.00 P.M.
Max. Marks: 100

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** Define function. Describe various types of functions in C language. (15)
- Q.2** What do you mean by sorting of array? Explain different sorting techniques. (15)
- Q.3** What is string? Explain following string functions (15)
- | | |
|-----------------|----------------|
| i) strlen () | ii) strcpy () |
| iii) strcmp () | iv) strlwr () |
| v)strupr () | vi) strcat () |
- Q.4** Explain with example the different control structures used in C. (15)
- Q.5** Define operator. Explain different types of operators in C. (15)
- Q.6** Explain the formatted input and output functions in C language. (15)
- Q.7** Write short notes on Any **TWO**: (15)
- a) The function main ()
 - b) Data types in C
 - c) Concepts of program and subprogram

SECTION-II

- Q.8** a) Write a C program to check whether given number is Armstrong number or not. (15)
- b) Write a C program to display factorial of a given number. (05)
- Q.9** Write a menu driven program using functions to convert a decimal number to its binary, octal equivalents: DecimalToBinary () and DecimalToOctal (). (20)
- Q.10** a) Write a C program to sort elements stored in an array. (10)
- b) Write a function MaximumOfThree () which return the maximum of its three parameters. (10)



AMoor – I (2014 COURSE) (CBCS) : WINTER 2014
SUBJECT: PRINCIPLES OF MANAGEMENT

Day: Thursday
Date: 13-11-2014

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

Time: 10.00 A.M. To 1.00 P.M.
Max Marks. 100

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 Management is regarded as an art by some, science by others. In the light of this statement, explain exact nature of management. (15)
- Q.2 Explain the evolution of management with respect to different time periods. (15)
- Q.3 What are the different steps involved in planning? (15)
- Q.4 What is the concept of organization? What are its different elements? (15)
- Q.5 Explain the concept of financial control with suitable examples. (15)
- Q.6 Explain the difference between positive and negative motivation. (15)
- Q.7 Write short notes on the following: (15)
- a) Social Responsibility
 - b) Decision Making
 - c) Delegation

SECTION - II

- Q.8 What do you mean by staffing? How is it important to an organization? Discuss how every manager is responsible for staffing? (20)
- Q.9 What are the essentials of effective control system? Discuss modern methods of control with suitable examples. (20)
- Q.10 "Management is getting things done through others". Discuss with appropriate examples. (20)