AMOOR- I (2014 Course) : WINTER - 2015

Subject : Database Management Theory

Day : Saturday
Date : 21/11/2015

26308

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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AMOOR- I (2014 Course) : WINTER - 2015

Subject : C Programming - I

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)**

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Subject : Principles of Management

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)**

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Subject : Fundamentals of Information Technology

Day : Monday
Date : 11/04/2016

29223

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 **a)** What is computer? Draw block diagram of computer. **(07)**

b) List and explain some important characteristics of a computer. **(08)**

Q.2 How many types of storage a computer system normally uses? Justify the need for each type. **(15)**

Q.3 Differentiate between the following: **(15)**
a) High Level Language Vs Low Level Language
b) Application software Vs System software
c) Compiler Vs Interpreters

Q.4 In context of Magnetic Tape Storage define the following terms : **(15)**
i) Inter-Record gap ii) Inter-Block gap
iii) Blocking iv) Blocking factor

Q.5 How many types of Softwares are there? Write at least two examples of each. **(15)**

Q.6 What is an Operating System? Why it is necessary for a computer system? List different types of Operating System. **(15)**

Q.7 Write short notes on any **THREE** of the following: **(15)**
a) Output devices
b) Database Management System
c) Assembler
d) MS-DOS

SECTION - II

Q.8 What is Computer Networks? Explain different types of data transmission media used in Computer Networks? **(20)**

Q.9 Convert the following decimal numbers into binary number and Hexadecimal number system: **(20)**
i) $(1024)_{10}$ ii) $(128)_{10}$ iii) $(64)_{10}$ iv) $(25)_{10}$ v) $(275)_{10}$

Q.10 What are different types of File organization? Explain in detail. **(20)**

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Subject : Database Management Theory

Day : Wednesday
Date : 13/04/2016

29224

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 DBMS. Explain advantages of DBMS over traditional file system.

Q.2 Explain the 3 tier architecture of DBMS with the help of a diagram.

Q.3 Explain CODD's Rules in detail.

Q.4 Explain the following terms associated with ER diagrams:

i) Weak Entities
ii) Cardinality Ratios
iii) Attributes

Q.5 What is a transaction? Explain ACID properties of a transaction in detail.

Q.6 What is recovery? Explain the various types of failures that may occur in a database environment?

Q.7 Write short notes on the following:

a) DBA
b) B+ trees
c) Functional Dependencies

SECTION-II

Q.8 Draw an ER diagram for Library Management System.

Q.9 What is Normalization? Explain 1NF, 2NF and 3NF with example.

Q.10 What is Relational Algebra? Explain the various relational algebra operators in detail.

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Subject : C Programming - I

Day : Monday
Date : 18/04/2016

29225

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 Explain in brief concepts of Machine, Assembly and Higher Level Languages. **(15)**

Q.2 **a)** Explain the formatted input and output functions in C language. **(08)**
b) Describe executable and non - executable statements. **(07)**

Q.3 What is function? Explain different types of functions in detail. **(15)**

Q.4 Explain in brief iteration statements in C. **(15)**

Q.5 What is an array? Explain various types of array in C. **(15)**

Q.6 What is string? Explain various string manipulation functions in C. **(15)**

Q.7 Write short notes on any **TWO**: **(15)**
a) Call by value
b) Operators and operands
c) Types of errors.

SECTION - II

Q.8 Write a menu driven program in C using functions to calculate square, cube and square root of a given number **(20)**

Q.9 **a)** Write a C program to display sum of digits of given integer number. **(10)**
b) Write a C program to display factorial of a given number. **(10)**

Q.10 Write a C program to display all array elements in descending order using bubbles sort technique. **(20)**

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Subject : Principles of Management

Day : Thursday
Date : 21/04/2016

29226

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 Explain different levels of Management with suitable examples. **(15)**

Q.2 Discuss in brief how Evolution of Management takes place from industrial revolution. **(15)**

Q.3 Explain different steps involved in planning. **(15)**

Q.4 Explain different forms of organization with appropriate examples. **(15)**

Q.5 Illustrate Co- ordination process and its importance for an organization. **(15)**

Q.6 Discuss concept and Characteristics of control?

Q.7 Write Short Notes on **ANY TWO** of the following: **(15)**

a) Delegation
b) Motivation
c) Quality Control

SECTION-II

Q.8 "Management is an art, science and profession" Discuss. **(20)**

Q.9 Explain the functions and qualities of leadership with suitable examples. **(20)**

Q.10 Explain the concept of decision making of an organization with examples. **(20)**

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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

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AMOOR- I (2014 Course) CBCS : WINTER - 2016

Subject : Database Management Theory

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, employeename, 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]**

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AMOOR- I (2014 Course) CBCS : WINTER - 2016

Subject : C Programming - I

Day : Friday
Date : 11/11/2016

32270

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)**

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AMOOR- I (2014 Course) CBCS : WINTER - 2016

Subject : Principles of Management

Day : Tuesday
Date : 15/11/2016

32271

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, modern methods of control. **(15)**

Q. 2 Write in detail a note on the Evolution of Management. **(15)**

Q. 3 What is meant by Motivation? Differentiate, with appropriate examples between positive and negative motivation. **(15)**

Q. 4 State different sources of recruitment highlighting suitability of each such a source of recruitment. **(15)**

Q. 5 Discuss the concept of social responsibility of management in the present environment. **(15)**

Q. 6 What is meant by Planning? Discuss the steps involved in the planning process. **(15)**

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 motivation amongst supervisory staff. Prepare a plan as a HR head on how to motivate the said supervisory staff? **(20)**

Q. 9 Off late your organization has noticed that your customers are not satisfied 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. **(20)**

Q.10 You intend to send a batch of fresh BCA candidates as trainees to your new branch to be opened next year in Assam. Prepare in detail a suitable recruitment plan. **(20)**

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