Subject Code :   05101153
Subject Title :   Database Management System
Course :   BCA / IMCA   Semester : 2

Date :   12/04/2017
Time :   1.30 Hours
Total Marks :   **30**

Q-1   **Multi Purpose Choice Questions (Attempt any 06 out of 10)**   **(06)**

1   The DBMS acts as an interface between what two components of an enterprise-class   **(1)**
         database system?

A   Database application and the database

B   Data and the database

C   The user and the database application

D   Database application and SQL

2   The scheme for hierarchical database is   **(1)**

A   A tree

B   A graph

C   A B-tree

D   None of the above

3   The data model which describes how the data is actually stored   **(1)**

A   External model

B   Logical/conceptual model

C   Internal/Physical model

D   None of these

4   DBA stands for   **(1)**

A   Data Bank Access

B   Database Access

C   Data Bank Administrator

D   Database Administrator

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5   Which of the following are properties of entities?   **(1)**

   A   Groups

   B   Table

   C   Attributes

   D   Switchboards

6   Which one of the following data model design is both software and hardware   **(1)**

       independent?

   A   Logical

   B   Physical

   C   Conceptual

   D   None of the above

7   Data are

   A   Raw facts and figures

   B   Information

   C   Electronic representation of facts

   D   None of the above

8   Which of the following attribute do not exist in the physical database, but their values   **(1)**

       are derived from other attributes present in the database.

   A   Simple attribute

   B   Derived attribute

   C   Single-valued attribute

   D   Composite attribute

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9   The set of all possible values of data items is called   (1)

    A Domain

    B Attribute

    C Tuples

    D Entities

10   Which one is the lowest level data model?   (1)

    A Physical data model

    B Logical data model

    C Conceptual Data model

    D External Data Model

Q-2   **Answer the following questions in short with examples (Attempt any 08 from 10)**   **(08)**

1   Define Information with example   (1)

2   Define Instance with example   (1)

3   Define DBMS with example   (1)

4   Define Relationship with example   (1)

5   Define Data Model with example   (1)

6   Define Total Participation with example   (1)

7   Define Weak Entity with example   (1)

8   Define Data Abstraction with example   (1)

9   Define Data Independence with example   (1)

10   Define Entity with example   (1)

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Q-3	**Answer the following questions in brief (Attempt any 4 from 6)**	(08)

1	Explain various Degrees of a Relationship Set	(2)
2	Explain Physical Model	(2)
3	Explain two types of Data Independence	(2)
4	Write the duties of Database Administrator (DBA)	(2)
5	Explain Logical/Internal Model	(2)
6	Explain Specialization	(2)

Q-4	**Answer the following questions in detail (Attempt any 2 from 4)**	(08)

1	Explain ANSI/SPARC Database Architecture	(4)
2	Explain Hierarchical DB Model with example in detail	(4)
3	Explain different types of Attributes	(4)
4	Construct an ER diagram for university database which consists of following entities	(4)

Student includes Student_ID, student_name, student_address, student_phno,
student_dateofbirth

Instructor includes inst_Id, inst_name, course_id

Primary keys are – student_id, inst_id

Composite Attribute - Student_address (Streetno,apartment_no, city, pincode)

Age is derived attribute from student_dateofbirth

*** *All the Best* ***