S.Y. BCA SEM 4

Seat No. : 1099

XW-115

April-2013

B.C.A. (Sem.-IV)

CC-208 DATABASE MANAGEMENT SYSTEM - II

Time : 3 Hours] **[Max. Marks : 70**

Instruction : Write new question from new page.

1. (A) (1) Explain the following commands giving example : **4**
   (a) CREATE (b) ALTER
   (c) DROP (d) DELETE

   (2) What is a virtual table ? State its purpose. Give an example of its syntax. **3**

   OR

   (1) Explain the different SQL constraint's. **4**

   (2) Discuss the SQL data types. **3**

   (B) (1) Discuss special operators giving example : **4**
   (a) LIKE (b) BETWEEN
   (c) IN (d) EXISTS

   (2) What are Aliases ? How are they used in SQL queries ? **3**

   OR

   (1) Discuss the use of ORDER BY and GROUP BY. **4**

   (2) Discuss the functions COUNT, MAX and SUM. **3**

2. (A) (1) Explain with diagram the BI framework. **4**

   (2) What is Business Intelligence ? Discuss the general steps involved in BI. **3**

   OR

   (1) Differentiate operational data and decision support data. **4**

   (2) Discuss the basic BI architectural components. **3**

   (B) (1) What is Data warehouse and what are its main characteristics ? **4**

   (2) Describe the decision support database requirements. **3**

   OR

   (1) What is OLAP and what are its main characteristics ? **4**

   (2) What is Data Mining ? Discuss the different phases in the data mining process. **3**

3. (A) (1) What is DDBMS ? State its advantages and disadvantages. **4**

(2) Differentiate between Distributed database and Distributed processing. **3**

OR

(1) Discuss : (a) Multiple-site processing and Single-site data (MPSD)
(b) Multiple-site processing and Multiple-site data (MPMD) **4**

(2) Explain the components of DDBMS. **3**

(B) (1) What is Distribution transparency ? Explain the different types of distribution transparency. **4**

(2) Explain the Two-phase commit protocol. **3**

OR

(1) Describe the different types of database requests and transactions. **4**

(2) Discuss Query optimization. **3**

4. (A) (1) Explain DATE & TIME functions. **4**

(2) What is Cross Join ? Give an example of its syntax. **3**

OR

(1) Given the tables student-1 and student-2 perform the following relational operators and show the output : **4**

(a) UNION (b) UNION ALL

(c) MINUS (student1 – student2) (d) INTERSECT

Student-1

Stu_id	Stu_name	Stu_phone
1	Smith	1234
2	Riya	3456
3	Komal	8765
4	Ajay	4444

Student-2

Stu_id	Stu_name	Stu_phone
1	Smith	1234
5	Anu	3333
6	Smita	6666
4	Ajay	4444
7	Shreya	9999

(2) What is an Oracle sequence ?Write its syntax. **3**

(B) (1) Discuss Outer joins. **4**

(2) Write the output for the following queries : **3**

(a) SELECT SUBSTR ('EXPIRATION', 5, 3) FROM DUAL;

(b) SELECT CEIL (10.34) FROM DUAL;

(c) SELECT FLOOR (21.68) FROM DUAL;

OR

(1) What is Subquery and list its basic characteristics ? Discuss IN subqueries. **4**

(2) Explain the following functions with example : **3**

(a) TO_NUMBER

(b) LENGTH

(c) ABS

(A) Fill in the blanks : 7

(1) SQL is a _____ language.

(2) _____ is a group of database objects.

(3) Join operations are classified as _____ and _____.

(4) OLAP stands for _____.

(5) In distributed database system, database is composed of several parts known as _____.

(6) _____ is a small, single-subject data warehouse subset that provides decision support to small group of people.

(7) Query optimization algorithms are classified as _____ and _____.

(B) State True/False : 7

(1) DDL stands for data definition language.

(2) CHAR data type can have fixed length character data upto 250 characters.

(3) The default order in ORDER BY clause is ascending.

(4) TO_DATE function returns today's date.

(5) Heterogeneity transparency allows integration of several different local DBMSs.

(6) MDM stands for Multiple Database Management.

(7) Distributed processing requires distributed database, but distributed database does not require distributed processing.