



UNIVERSITY OF PETROLEUM & ENERGY STUDIES

DEHRADUN

End Term Examination – May, 2017

Program/course: MBA (BA)
Subject: Data Management
Code : MBBA833
No. of page/s: 6

Semester – II
Max. Marks : 100
Duration : 3 Hrs

(Please answer the questions **IN CONTEXT**)

Section - A

Q1) Select appropriate option from the following: (20 x 2 = 40)

1. DBMS is a collection of that enables user to create and maintain a database.

- A) Keys
- B) Translators
- C) Program
- D) Language Activity

2. In a relational schema, each tuple is divided into fields called

- A) Relations
- B) Domains
- C) Queries
- D) All of the above

3. In an ER model, is described in the database by storing its data.

- A) Entity
- B) Attribute
- C) Relationship
- D) Notation

4. DFD stands for

- A) Data Flow Document
- B) Data File Diagram
- C) Data Flow Diagram
- D) None of the above

5. A top-to-bottom relationship among the items in a database is established by a

- A) Hierarchical schema
- B) Network schema

- C) Relational Schema
- D) All of the above

6. table store information about database or about the system.

- A) SQL
- B) Nested
- C) System
- D) None of these

7.defines the structure of a relation which consists of a fixed set of attribute-domain pairs.

- A) Instance
- B) Schema
- C) Program
- D) Super Key

8. clause is an additional filter that is applied to the result.

- A) Select
- B) Group-by
- C) Having
- D) Order by

9. A logical schema

- A) is the entire database
- B) is a standard way of organizing information into accessible parts.
- C) Describe how data is actually stored on disk.
- D) All of the above

10. is a full form of SQL.

- A) Standard query language
- B) Sequential query language
- C) Structured query language
- D) Server side query language

11) A relational database developer refers to a record as

- A. a criteria
- B. a relation
- C. a tuple
- D. an attribute

12) keyword is used to find the number of values in a column.

- A. TOTAL
- B. COUNT
- C. ADD
- D. SUM

13) An advantage of the database management approach is

- A. data is dependent on programs
- B. data redundancy increases
- C. data is integrated and can be accessed by multiple programs

D. none of the above

14) The collection of information stored in a database at a particular moment is called as

- A. schema
- B. instance of the database
- C. data domain
- D. independence

15) Data independence means

- A. data is defined separately and not included in programs.
- B. programs are not dependent on the physical attributes of data
- C. programs are not dependent on the logical attributes of data
- D. both B and C

16) A is used to define overall design of the database

- A. schema
- B. application program
- C. data definition language
- D. code

17) Key to represent relationship between tables is called

- A. primary key
- B. secondary key
- C. foreign key
- D. none of the above

18) Grant and revoke are statements.

- A. DDL
- B. TCL
- C. DCL
- D. DML

19) DBMS helps achieve

- A. Data independence
- B. Centralized control of data
- C. Neither A nor B
- D. Both A and B

20) command can be used to modify a column in a table

- A. alter
- B. update
- C. set
- D. create

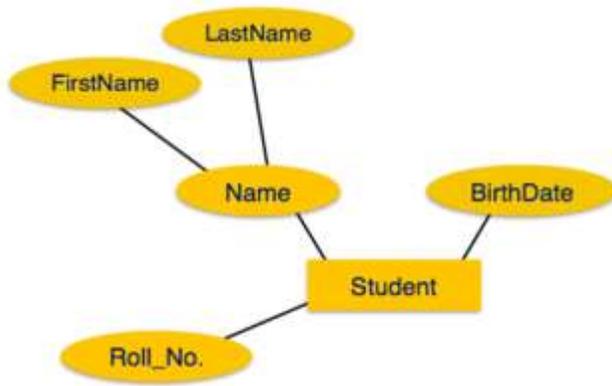
Section – B

Attempt any 6 questions:

(6 x 5 = 30)

- i) Explain three different types of schema.

- ii) Describe the use of column aliases in SQL with the help of examples.
- iii) Describe schema and its different types with the help of examples.
- iv) Describe the different types of cardinalities used in ER diagrams.
- v) What are different types of attributes used in ER diagram?
- vi) Describe the given ER diagram:



- vii) Describe different types of normalization with the help of examples.

Section C

Q1.Solve following problem:

(8+12+10=30)

- a) Consider an **employee_tbl** table, which is having the following records:

```

SQL> SELECT * FROM employee tbl;
+-----+-----+-----+-----+
| id   | name  | work date | daily typing pages |
+-----+-----+-----+-----+
| 1    | John  | 2007-01-24 | 250 |
| 2    | Ram   | 2007-05-27 | 220 |
| 3    | Jack  | 2007-05-06 | 170 |
| 3    | Jack  | 2007-04-06 | 100 |
| 4    | Jill  | 2007-04-06 | 220 |
| 5    | Zara  | 2007-06-06 | 300 |
| 5    | Zara  | 2007-02-06 | 350 |
+-----+-----+-----+-----+
    
```

Write output for the following SQL:

- i) `SELECT COUNT(*) FROM employee_tbl WHERE name="Zara";`
- ii) `SELECT id, name, MAX(daily_typing_pages) FROM employee_tbl GROUP BY name;`
- iii) `SELECT MIN(daily_typing_pages) least, MAX(daily_typing_pages) max FROM employee_tbl;`
- iv) `SELECT SUM(daily_typing_pages) FROM employee_tbl;`

b) Consider the following table, CUSTOMERS having the following records:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	
7	Muffy	24	Indore	

Write output for following SQL:

- i) `SELECT ID, NAME, AGE, ADDRESS, SALARY FROM CUSTOMERS WHERE SALARY IS NOT NULL;`
- ii) Update ADDRESS to Pune for a customer whose ID is 6.
- iii) DELETE a customer record, whose ID is 6.
- iv) Sort the result in descending order by NAME.
- v) Insert two records in a table.
- v) `SELECT NAME, SUM(SALARY) FROM CUSTOMERS GROUP BY NAME;`
- vi) `SELECT DISTINCT SALARY FROM CUSTOMERS ORDER BY SALARY;`

c) Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. Associate with each patient a log of the various tests and examinations conducted.