

Seat no. 

Shivaji University, Kolhapur

Kamala College, Kolhapur

B.C.A (Part -I) (Semester - II) (CBCS) Examination

June - 2022

Database Management System (DBMS)

Sub. Code : 80868

Day and Date : Tuesday, 07 - 06 -2022

Total Marks : 70

Time: 10:30am to 1:30pm

Instruction:

- Que.1 and Que.6 are compulsory and attempt any three questions from Que. No. 2 to Que. No. 5
- Figures to the right indicate marks.

Q.1

A. Multiple Choice Question

[10]

Q. 1 Who invented Relational Model ?

- |                 |                      |                  |                   |
|-----------------|----------------------|------------------|-------------------|
| 1) Dr. E.F.Codd | 2) Bjarne Stroustrup | 3) James Gosling | 4) Dennis Ritchie |
|-----------------|----------------------|------------------|-------------------|

Q. 2 Which schema pertains to the actual storage of data ?

- |                    |                   |                      |                  |
|--------------------|-------------------|----------------------|------------------|
| 1) Physical Schema | 2) Logical Schema | 3) Conceptual Schema | 4) None of these |
|--------------------|-------------------|----------------------|------------------|

Q. 3 Which of the following are TCL commands?

- |                        |                        |                     |                      |
|------------------------|------------------------|---------------------|----------------------|
| 1) UPDATE and TRUNCATE | 2) COMMIT and ROLLBACK | 3) GRANT and REVOKE | 4) SELECT and INSERT |
|------------------------|------------------------|---------------------|----------------------|

Q. 4 When one record in a table can be associated with one or more records in another table then there is which type of cardinality?

- |                |               |                 |                |
|----------------|---------------|-----------------|----------------|
| 1) Many-to-One | 2) One-to-One | 3) Many-to-Many | 4) One-to-Many |
|----------------|---------------|-----------------|----------------|

Q.5 The phenomenon of changing data at one layer without affecting data at another layer is known as -----.

- |                     |                    |                      |             |
|---------------------|--------------------|----------------------|-------------|
| 1) Data Abstraction | 2) Database Schema | 3) Data Independence | 4) Database |
|---------------------|--------------------|----------------------|-------------|



Q.6 If we have not specified ASC or DESC after a SQL ORDER BY clause, then which of the following is used by default?

- 1) DESC                      2) ASC                      3) There is no default value                      4) ADESC

Q.7 Which data dictionary is Self Updating?

- 1) Passive Data Dictionary                      2) Active Data Dictionary                      3) All of these                      4) None of these

Q.8 If an entity depends on another entity then the entity known to be what?

- 1) Relationship                      2) Entity                      3) Weak Entity                      4) Attribute

Q.9 Which database model organizes data into a tree-like-structure ?

- 1) Hierarchical Model                      2) Network Model                      3) Relational Model                      4) Object Oriented Model

Q.10 Which of the following fields are displayed as output?

SELECT \* FROM Emp WHERE Salary > 10000 AND dept\_id = 101;

- 1) Employee                      2) Salary, dept\_id                      3) All the field of emp table                      4) Salary

Q.1

B. Short Answer Question (Any two out of three)

[10]

1. Functions of DBMS
2. Client-Server Database System
3. Keys in DBMS

Q.2 Explain normalization with a suitable example.

[10]

Q.3 Explain commands in SQL.

[10]

Q.4 Explain centralized and distributed database systems.

[10]

Q.5 Explain Entity Relationship Model in detail.

[10]

Q.6 Write notes on (Any 4 out of 6)

[20]

- A. Explain DFD and its symbols
- B. SQL Clauses (Where clause, order by clause)
- C. Absolute and Relative address
- D. ACID properties of DBMS
- E. Data Abstraction
- F. 1<sup>st</sup> NF and 2<sup>nd</sup> NF with an example

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