

**BCA**  
**SECOND SEMESTER**  
**RELATIONAL DATABASE MANAGEMENT SYSTEM**  
**BCA- 203(OLD)**

**Duration: 2 Hrs. 40 Mins.**

**Marks: 50**

{ Part : A (Objective) = 20 }  
{ Part : B (Descriptive) = 50 }

[ PART-B : Descriptive ]

**[ Answer question no. One (1) & any four (4) from the rest ]**

1. What is the significance of using an ER Diagram in a database? Write down the symbols used in ER Diagram. Draw an ER Diagram for Hostel Management System  
2+4+4= 10
2. What do you mean by hashing? Explain the hash functions and collision resolution techniques with examples.  
2+6+2= 10
3. What are the types of statements used in SQL. Explain all the types along with examples.  
3+7= 10
4. Why constraints are necessary to use in DBMS. Explain the different constraints of DBMS.  
2+8=10
5. Why normalization is used? Explain all types of normal forms along with the examples.  
4+6= 10
6. What is a view? Define the types of view along with its restrictions.  
3+7= 10
7. What is the use of concurrency control in DBMS? Write the syntax to lock a table. Give example. How a lock can be released?  
3+3+2+2= 10
8. Explain the relational operators along with example.  
10

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[ PART-A : Objective ]

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Choose the correct answer from the following:

1×20=20

1. The \_\_\_\_\_ is an ordered file with fixed length records with two fields-first field is the primary key & the second is the pointer to a disk block.

- a. Clustering index                      b. Secondary index  
c. Primary index                          d. All of them

2. In a hash function, where the modification takes the form of a function from the set K of keys into the set L of memory addresses can be expressed as:-

- a.  $K:H \rightarrow L$                           b.  $L:K \rightarrow L$   
c.  $H:L \rightarrow K$                           d.  $H:K \rightarrow L$

3. The database administrator is the focus of the \_\_\_\_\_ control.

- a. Distributed                              b. Decentralized  
c. Centralized                                d. DBMS

4. The 'like' predicate is used for pattern \_\_\_\_\_.

- a. Duplication                              b. Matching  
c. Differentiation                          d. Colliding

5. The \_\_\_\_\_ is a desirable property of transaction.

- a. Isolation                                  b. Atomicity  
c. Durability                                  d. All of the above

6. An entity that does not have a key attribute is called \_\_\_\_\_.

- a. Weak entity types                      b. Entity types  
c. Null attribute                              d. Derived attribute\*

7. In SQL, \_\_\_\_\_ function has a special meaning in that it counts the number of rows of a relation.

- a. Count(fieldname)                      b. Count(\*)  
c. Both a & b                                  d. None of them

8. \_\_\_\_\_ is a unique identifier created by the DBMS to identify a translation.

- a. Locking                                      b. Timestamp  
c. Two phase locking                      d. All of these

9. A view is a \_\_\_\_\_ table that is one which actually does not exist.

- a. Physical                                      b. virtual  
c. distinct                                      d. log

10. The \_\_\_\_\_ key is the one which must be unique within the domain and must always have a value.

- a. Candidate                                      b. Foreign  
c. Unique                                        d. primary

11. The RDBMS minimizes the \_\_\_\_\_ of data.

- a. Consistency                                      b. Redundancy  
c. Sharing                                        d. cardinality

12. In \_\_\_\_\_, database is used for keeping records of calls made, generating monthly bills, maintaining balances on prepaid calling cards & storing information about the communication networks

- a. Telecommunications                      b. Airlines  
c. Reservations                                d. Transportation

13. Address is an example for \_\_\_\_\_ attribute.

- a. Composite                                      b. Unique  
c. Not null                                        d. Primary

14. Database System supports one physical schema, one conceptual schema and several \_\_\_\_\_.

- a. Logical                                        b. Subsystem  
c. Storage manager                          d. Recovery manager

15. The acronym ACID is sometimes used to refer to the \_\_\_\_\_ of transaction.

- a. Begin    b. End  
c. Four properties                              d. Commit/abort

16. SQL commands can be roughly divided into \_\_\_\_\_ major categories with regard to their functionality.

- a. One    b. Two  
c. Three    d. Four

17. A \_\_\_\_\_ is an association among several entities.

- a. Relationship                                      b. Key  
c. Partial key                                      d. Entity





18. The E-R data model based on a perception of the real world that consists of a set of basic objects called \_\_\_\_\_.

- a. Entities
- b. Relations
- c. Attributes
- d. Primary key

19. A \_\_\_\_\_ DBMS is the system if many users can use the system.

- a. Single user
- b. Multi user
- c. Anyone of a and b
- d. Both a & b

20. Color of the car & degrees of students are examples of the \_\_\_\_\_ attribute.

- a. Null
- b. Derived
- c. Single valued
- d. Multi valued

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Course : .....

Semester : ..... Roll No : .....

Enrollment No : ..... Course code : .....

Course Title : .....

Session : ..... 2016-17 ..... Date : .....

**Instructions / Guidelines**

- The paper contains twenty (20) / ten (10) questions.
- The student shall write the answer in the box where it is provided.
- The student shall not overwrite / erase any answer and no mark shall be given for such act.
- Hand over the question paper cum answer sheet (Objective) within the allotted time (20 minutes / 10 minutes) to the invigilator.

Full Marks	Marks Obtained	Remarks
<b>20</b>		

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*Scrutinizer's Signature*

.....  
*Examiner's Signature*

.....  
*Invigilator's Signature*