Total No. of Questions : 5]

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SEAT No. :

[Total No. of Pages : 4

[5865] - 204

F.Y. M.C.A. (Management)

IT - 24 : ADVANCED DBMS

(2020 Pattern) (Semester - II)

Time : 2½ Hours]

[Max. Marks : 50

Instructions to the candidates:
1) *All questions are compulsory.*
2) *Figures to the right indicates full marks.*

Q1) Write correct option or filling the blanks of following questions (each ½ mark). **[10]**

1) Full form of OQL is _____.
   a) Object Oriented Language   b) Object Query Language
   c) Object Quantum Language   d) Object Query Logic

2) A database which is able to handle complex relationship _____.
   a) DBMS   b) File
   c) Information d) OODBMS

3) A DBMS uses a transaction _____ to keep track of all transaction that update the database.
   a) log   b) table
   c) block d) statement

4) A timestamp ordering scheme ensures _____.
   a) Serializability b) Cascading
   c) Atomicity   d) Consistency

5) DBMS running across multiple processors called as _____.
   a) Distributed system b) Parallel system
   c) Centralized system d) None

6) In an E-R Diagram entities are represented by _____.
   a) Circle   b) Rectangle
   c) Diamond d) Ellipse

7) Rows of a relation are called _____.
   a) tuple   b) a relation
   c) a data structure d) an entity

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8) Which of the constraint can be enforced one per table _____.
   a) Primary key
   b) Not null
   c) Foreign key
   d) Check

9) Which of the following cannot be taken as a primary key?
   a) Id   b) Register Number
   c) Dept - Id   d) Street

10) Which of the following is not NOSQL Database?
    a) Cassandra   b) MongDB
    c) SQL selver   d) None of the above

11) What are the type of NOSQL Database.
    a) Document database
    b) Key value store
    c) Graph of column-oriented database
    d) All of the above

12) The core principle of NOSQL is:
    a) High availability   b) Low availability
    c) Both high & low availability d) None of the above

13) Which of the following is not a type of data base?
    a) Hierarchical   b) Network
    c) Distributed   d) Decentralized

14) The ability to query data as well as insert, delete alter is offered by
    a) TCL (Transaction Control language)
    b) DCL (Data Control Language)
    c) DDL (Data Definition Language)
    d) DML (Data manipulation Language)

15) A distributed transaction can be _____ if queries are issued at one or more nodes.
    a) Fully read-write   b) Partially read-write
    c) Partially read-only   d) Fully read-only

16) Which statement is used to revoke an authorization.
   a) Revoke
   b) Modify
   c) Alter
   d) Commit

17) A distributed database has which of the following advantages over a centralized database?
   a) Software complexity
   b) Slow response
   c) Modular growth
   d) Software cost

18) In which year NOSQL was released
   a) 1996
   b) 1997
   c) 1998
   d) 1999

19) Which of the following is a NOSQL Database?
   a) SQL
   b) JSON
   c) Document Database
   d) All of the above

20) A schedule in which each transaction is executed atomically is called a

   _____.
   a) Non serial schedule
   b) Serial schedule
   c) Parallel schedule
   d) Non paralled schedule

Q2) Draw the E-R Diagram for the following system & explain notation & Relationship XYZ hospital is a multispeciality hospital that includes a names of department, rooms, Doctors, nurses, compounders of other working staff. Patient having different kind of ailments come to the hospital of get checkup done from the concerned doctors. If required they are admitted in the hospital of discharged after treatment. The aim of this case study is to design and develop a database for the hospital to maintain the records of various department, rooms and doctors in the hospital. It also maintains records of the regular patients, patient admitted in the hospital, the checkup of patient done by the doctors, the patients that have been operated and patient discharged from the hospital. **[10]**

OR

What is meant by lock? Explain two phase locking protocal for concurrency control with example. **[10]**

Q3) a) Describe the data base 3-tier schema architecture? [5]
b) Write short note on mobile database. [5]

OR

a) What is need of the Database? Write characteristics of DBMS. [5]

b) Write the characteristics of OODDMS. [5]

Q4) a) Write the log based recovery techniques with example? [5]
b) Write short note on Grant and revoking privilege with example. [5]

OR

a) What is Database Backup of types of backup? [5]

b) Write short note on mandatory Access control. [5]

Q5) Explain the Inter query of Intraquery parallelizm in details with example. [10]

OR

Explain different between homogeneous and hetrogeneous database with example. [10]

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