BRAINWARE UNIVERSITY

Term End Examination 2020 - 21

Programme – Bachelor of Science in Information Technology

Course Name – Database Management System

Course Code - BAIC101

Semester / Year - Semester I

Time allotted : 75 Minutes Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 60=60

1. *(Answer any Sixty)*

(i) DBMS Stand for

a) Database marginal system
b) Directory Based Memory Standard
c) Database Management System
d) Dual Bus Mask Storage

(ii) In the relational modes, cardinality is termed as

a) Number of tuples
b) Number of attributes
c) Number of tables
d) Number of constraints

(iii) Relational calculus is a

a) Procedural language
b) Non- Procedural language
c) Data definition language
d) High level language.

(iv) The view of total database content is

a) Conceptual view
b) Internal view
c) External view
d) Physical View.

(v) DML is provided for

a) Description of logical structure of database
b) Addition of new structures in the database system.
c) Manipulation & processing of database.
d) Definition of physical structure of

database system.

(vi) Architecture of the database can be viewed as

a) two levels
b) three levels
c) four levels
d) one levels

(vii) In a relational model, relations are termed as

a) Tuples
b) Attributes
c) Tables
d) Rows

(viii) The database schema is written in

a) HLL
b) DML
c) DDL
d) DCL

(ix) The language used in application programs to request data from the DBMS is referred

a) DML
b) DDL
c) VDL
d) SDL

(x) A logical schema

a) is the entire database
b) is a standard way of organizing information into accessible parts.
c) describes how data is actually stored on disk.
d) both (is the entire database) and (describes how data is actually stored on disk.)

(xi) The language which has recently become the defacto standard for interfacing application programs with relational database system is

a) Oracle
b) SQL
c) DBase
d) 4GL

(xii) In the architecture of a database system external level is the

a) physical level
b) logical level
c) conceptual level
d) view level

(xiii) An entity set that does not have sufficient attributes to form a primary key is a

a) strong entity set.
b) weak entity set.
c) simple entity set.
d) primary entity set.

(xiv) In an E-R diagram attributes are represented by

a) rectangle
b) square
c) eclipse
d) triangle

(xv) The way a particular application views the data from the database that the application uses is a

a) module
b) relational Model
c) schema
d) sub-schema

(xvi) A report generator is used to

a) update files.
b) print files on paper.
c) data entry.
d) delete files

(xvii) The property / properties of a database is / are :

a) It is an integrated collection of logically related records.
b) It consolidates separate files into a common pool of data records.
c) Data stored in a database is independent of the application programs using it.
d) All of these.

(xviii) The DBMS language component which can be embedded in a program

a) The data definition language (DDL)
b) The data manipulation language (DML).
c) The database administrator (DBA)
d) A query language.

(xix) A relational database developer refers to a record as

a) a criteria.
b) a relation
c) a tuple.
d) an attribute

(xx) Conceptual design

a) is a documentation technique
b) needs data volume and processing frequencies to determine the size of the database.
c) involves modelling independent of the DBMS.
d) is designing the relational model.

(xxi) The method in which records are physically stored in a specified order according to a key field in each record is

a) hash
b) direct
c) sequential
d) all of these

(xxii) A subschema expresses

a) the logical view.
b) the physical view.
c) the external view.
d) all of these

(xxiii) The conceptual model is

a) dependent on hardware
b) dependent on software
c) dependent on both hardware and software .
d) independent of both hardware and software.

(xxiv) Third normal form is based on the concept of _____

a) Closure Dependency
b) Transitive Dependency
c) Normal Dependency
d) Functional Dependency

(xxv) A table is in the …….. if every determinant is a candidate key

a) functional dependency
b) Transitive dependency

c) 4NF d) BCNF

(xxvi) BCNF stand for

a) Boyse Codd Normal Form b) Boyce Codd Normal Form

c) Bernoulli Codd Normal Form d) Binary Cortex Normal form

(xxvii) Consider a relation R(A, B, C, D, E) with the set of functional dependencies F = {A ? B, B ? E, E ? A}. Relation R is in ____.

a) Un-normalized form b) Third Normal Form

c) BCNF d) Fourth Normal Form

(xxviii) The functional Dependency of two set E and F are considered as equivalent if

a) E+F=E-F b) E*=F2

c) EF=FE d) None of these

(xxix) If every functional dependency in set E is also closure in F then it is classified as

a) FD is covered by F b) E id covered by F

c) F is covered by E d) F+ is covered by E

(xxx) The form of dependency where set of attributes that are neither a subset of any key nor the candidate key is classified as

a) Partial Dependency b) Transitive Dependency

c) Multi Valued Dependency d) Joined Dependency

(xxxi) The rule which set the addition of same attribute to the right side and left side will result in other valid dependency is known as

a) Referencial Rule b) Inferential Rule

c) Augmentation Rule d) Reflexive Rule

(xxxii) The procedure of storing higher normal form relation from lower normal form as a base relation is classified as-

a) Isolation of data
b) Denormalization of Data
c) Normalization of data
d) Augmentation of Data

(xxxiii) With regards to transaction processing, any DBMS should be capable of:

a) Parts of a transaction are not lost due to a failure.
b) Ensuring that transactions are free from interference from other users.
c) Transactions do not make the database inconsistent.
d) All of these.

(xxxiv) What is the ACID property of Transactions?

a) Atomicity, Consistency, Isolation, Database
b) Atomicity, Consistency, Isolation, Durability
c) Atomicity, Consistency, Inconsistent, Durability
d) Automatically, Concurrency, Isolation, Durability

(xxxv) What are the ways of dealing with deadlock ?

a) Deadlock prevention
b) Deadlock recovery
c) Deadlock detection
d) All of these

(xxxvi) Which of the following occurs when a transaction rereads data and finds new rows that were inserted by a command transaction since the prior read?

a) Non-repeatable read
b) Phantom read
c) Dirty read
d) Consistent read

(xxxvii) The deadlock state can be changed back to stable state by using _____ statement.

a) commit
b) Rollback
c) Savepoint
d) Deadlock

(xxxviii) The deadlock in a set of transaction can be determined by

a) Read-only graph
b) Wait graph
c) Wait-for graph
d) All of these

(xxxix) A transaction may not always complete its execution successfully. Such a transaction is termed

a) Aborted
b) Terminated
c) Closed
d) All of these.

(xl) Which is an interface between a low level database and an application program?

a) Database Associator
b) Database Server
c) Database Manage
d) None of these

(xli) Who detects the failure of the system and restores the database to a consistent state ?

a) Database Administrator
b) Application Programmer
c) Naive User
d) Storage Manager

(xlii) Which of the following is the preferred way to recover a database after a transaction in progress terminates abnormally?

a) Rollback
b) Rollforward
c) Switch to duplicate database
d) Reprocess transactions

(xliii) Which of the following is the preferred way to recover a database after a system failure?

a) Rollback
b) Rollforward
c) Switch to duplicate database
d) Reprocess transactions

(xliv) Collections of operations that form a single logical unit of work are called

a) Views
b) Networks
c) Units
d) Transactions

(xlv) The “all-or-none” property is commonly referred to as
a) Isolation
b) Durability
c) Atomicity
d) None of these

(xlvi) Execution of translation in isolation preserves the _____ of a database
a) Atomicity
b) Consistency
c) Durability
d) All of the mentioned

(xlvii) Which of the following is not a property of a transaction?
a) Atomicity
b) Simplicity
c) Isolation
d) Durability

(xlviii) Which of the following systems is responsible for ensuring durability?
a) Recovery system
b) Atomic system
c) Concurrency control system
d) Compiler system

(xlix) Which of the following systems is responsible for ensuring isolation?
a) Recovery system
b) Atomic system
c) Concurrency control system
d) Compiler system

(l) The execution sequences in concurrency control are termed as
a) Serials
b) Schedules
c) Organizations
d) Time tables

(li) The scheme that controls the interaction between executing transactions is called as
a) Concurrency control scheme
b) Multiprogramming scheme

c) Serialization scheme
d) Schedule scheme

(lii) A transaction is said to be a unit of program's

a) Evaluation
b) Execution
c) Computation
d) Controlling

(liii) A transaction for which all committed changes are permanent is called:

a) atomic
b) consistent
c) isolated
d) durable

(liv) The situation where no transaction can proceed with normal execution is known as

a) Road block
b) Deadlock
c) Execution halt
d) Abortion

(lv) If a transaction may release locks but may not obtain any locks, it is said to be in _____ phase

a) Growing phase
b) Shrinking phase
c) Deadlock phase
d) Starved phase

(lvi) Locks placed by command are called

a) implicit locks
b) explicit locks
c) committed locks
d) shared locks

(lvii) A transaction is made to wait until all _____ locks held on the item are released

a) Compatible
b) Incompatible
c) Concurrent
d) Equivalent

(lviii) Serializability of schedules can be ensured through a mechanism called

a) Concurrency control policy
b) Evaluation control policy

c) Execution control policy
d) Cascading control policy

(lix) I and J are _____ if they are operations by different transactions on the same data item, and at least one of them is a write operation

a) Conflicting
b) Overwriting
c) Isolated
d) Durable

(lx) Database locking concept is used to solve the problem of

a) Lost Update
b) Uncommitted Dependency
c) Inconsistent Data
d) All of these