Unit 1: Introduction to RDBMS

1. Which of the following are steps in query processing?
   a) Parsing and translation
   b) Optimization
   c) Evaluation
   d) All of the mentioned

2. A relational algebra operation annotated with instructions on how to evaluate it is called _____
   a) Evaluation algebra
   b) Evaluation plan
   c) Evaluation primitive
   d) Evaluation engine

3. A sequence of primitive operations that can be used to evaluate a query are called as _____
   a) Query evaluation algebra
   b) Query evaluation plan
   c) Query evaluation primitive
   d) Query evaluation engine

4. The lowest level operator to access data in query processing is _____
   a) File scan
   b) File manipulation
   c) File handling
   d) File organization

5. Search algorithms that use an index are referred to as _____
   a) Index scans
   b) Search scans
   c) Primary scans
   d) Equality scans

6. Sorting of relations that do not fit in memory is called as _____
   a) Internal sorting
   b) External sorting
   c) Overflow sorting
   d) Overload sorting

7. A selection of the form satisfying the intersection of all records satisfying individual simple conditions is
   a) Conjunctive selection
   b) Disjunctive selection
   c) Negation

d) None of the mentioned

8. A selection of the form satisfying the union of all records satisfying individual simple conditions is
   a) Conjunctive selection
   b) Disjunctive selection
   c) Negation
   d) None of the mentioned

9. A selection of the form giving all the records not satisfying simple individual conditions is _____
   a) Conjunctive selection
   b) Disjunctive selection
   c) Negation
   d) None of the mentioned

10. Which of the following can be implemented?
    a) Conjunctive selection using one index
    b) Conjunctive selection using composite index
    c) Conjunctive selection by intersection of identifiers
    d) All of the mentioned

11. A join of the form r ⋈r.A=s.B s is called as
    a) Equi join
    b) Left outer join
    c) Right outer join
    d) Full outer join

12. for each tuple tr in r do begin
    FOR each tuple ts IN s do BEGIN
    test pair (tr , ts) TO see IF they satisfy the JOIN condition _
    IF they do, ADD tr • ts TO the RESULT;
    END
    END
13. What type of join is this?
    a) Equi join
    b) Hash join
    c) Nested loop join
    d) Block nested loop join

14. If nested loop join is done on a per block basis rather than on a per tuple basis, it is called as
    a) Equi join
    b) Hash join
    c) Nested loop join

d) Block nested loop join

15. The merge join can be used to compute
    a) Natural joins
    b) Equi joins
    c) Both the mentioned
    d) None of the mentioned

16. The _____ merges the sorted relation with leaf entries of the secondary B+ tree index.
    a) Merge join algorithm
    b) Hybrid merge join algorithm
    c) Hash join algorithm
    d) Hybrid Hash join algorithm

17. The splitting of input until each partition of the build input fits the memory is called as _____
    a) Temporary partitioning
    b) Block partitioning
    c) Recursive partitioning
    d) Byte partitioning

18. Overflow resolution is performed when,
    a) A hash index overflow is detected
    b) Extra hash indices are to be added
    c) When the number of partitions are to be increased
    d) None of the mentioned

19. Which of the following is not a set operation
    a) Union
    b) Intersection
    c) And operation
    d) Set difference

20. Which of the following joins preserves the tuples of the relation on the left side of the operator?
    a) Left outer join
    b) Natural join
    c) Right outer join
    d) None of the mentioned

21. State true or false: The aggregation functions can be implemented in the same way as that of duplicate elimination.
    a) True
    b) False

22. If the results of one operation are passed on to the other, it is called as _____
    a) Chain
    b) Pipeline
    c) Materialized
    d) Tree

23. The result of each intermediate operation are created and then are used for valuation of the next level operations, this evaluation is called as _____
    a) Chain evaluation
    b) Pipeline evaluation
    c) Materialized evaluation
    d) Demand driven evaluation

24. If the system makes repeated requests for tuples from the operation at the top of the table, it is called as _____
    a) Demand driven pipeline
    b) Producer driven pipeline
    c) Query driven pipeline
    d) None of the mentioned

25. If the operations do not wait to produce tuples, then it is called as _____
    a) Demand driven pipeline
    b) Producer driven pipeline
    c) Query driven pipeline
    d) None of the mentioned

26. State true or false: Sorting is an inherently blocking operation
    a) True
    b) False

27. State true or false: Join is an inherently blocking operation
    a) True
    b) False

28. 7. Which of the following techniques does not exist?
    a) Pipelined join technique
    b) Left pipelined join technique
    c) Right pipelined join technique
    d) None of the mentioned

29. State true or false: Hybrid hash join is partially pipelined on the probe relation
    a) True
    b) False

30. The usage of two buffers, with one continuing execution of the algorithm while the other is written is called as _____
    a) Double execution
    b) Multi tasking
    c) Double buffering
    d) Double algorithm

31. Which of the following functions does an iterator not provide
    a) Open()
    b) Next()
    c) Close()
    d) Wait()

Unit 2 : Transaction Management

32. Collections of operations that form a single logical unit of work are called _____
    a) Views
    b) Networks
    c) Units
    d) Transactions

33. The "all-or-none" property is commonly referred to as _____
    a) Isolation
    b) Durability
    c) Atomicity
    d) None of the mentioned

34. Which of the following is a property of transactions?
    a) Atomicity
    b) Durability
    c) Isolation
    d) All of the mentioned

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

36. Which of the following is not a property of a transaction?
    a) Atomicity
    b) Simplicity
    c) Isolation

d) Durability

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

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

39. State true or false: Information residing in the volatile storage does not usually survive system crashes
    a) True
    b) False

40. A transaction that has not been completed successfully is called as _____
    a) Compensating transaction
    b) Aborted transaction
    c) Active transaction
    d) Partially committed transaction

41. Which of the following is not a transaction state?
    a) Active
    b) Partially committed
    c) Failed
    d) Compensated

42. The execution sequences in concurrency control are termed as _____
    a) Serials
    b) Schedules
    c) Organizations
    d) Time tables

43. 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

44. 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

45. If a schedule S can be transformed into a schedule S' by a series of swaps of non-conflicting instructions, then S and S' are
    a) Non conflict equivalent
    b) Equal
    c) Conflict equivalent
    d) Isolation equivalent

46. A schedule is _____ if it is conflict equivalent to a serial schedule.
    a) Conflict serializable
    b) Conflicting
    c) Non serializable
    d) None of the mentioned

47. The set of _____ in a precedence graph consists of all the transactions participating in the schedule
    a) Vertices
    b) Edges
    c) Directions
    d) None of the mentioned

48. A _____of the transactions can be obtained by finding a linear order consistent with the partial order of the precedence graph.
    a) Serializability order
    b) Direction graph
    c) Precedence graph
    d) Scheduling scheme

49. State true or false: If I = read(Q) and J = read(Q) then the order of I and J does not matter.
    a) True
    b) False

50. State true or false: If I = read(Q) and J = write(Q) then the order of I and J does not matter.
    a) True
    b) False

51. Which of the following is the most expensive method?
    a) Timestamping
    b) Plain locking

c) Predicate locking
d) Snapshot isolation

52. A transaction that performs only one operation is called as a _____
a) Partial schedule
b) Complete schedule
c) Dependent schedule
d) Independent schedule

53. The phenomenon in which one failure leads to a series of transaction rollbacks is called as _____
a) Cascading rollback
b) Cascadeless rollback
c) Cascade cause
d) None of the mentioned

54. State true or false: Every cascadeless schedule is also recoverable
a) True
b) False

55. A _____ is one where, for each pair of transactions Ti and Tj such that Tj reads a data item previously written by Ti , the commit operation of Ti appears before the commit operation of Tj
a) Partial schedule
b) Dependent schedule
c) Recoverable schedule
d) None of the mentioned

56. State true or false: Transactions can only run serially
a) True
b) False

57. Which of the following are the advantages of transaction concurrency?
a) Increased throughput
b) Increased utilization
c) Reduces average response time
d) All of the mentioned

58. The average time for a transaction to be completed after it has been submitted is called as _____
a) Minimum response time
b) Average response time
c) Average reaction time
d) Minimum reaction time

59. If a schedule is equivalent to a serial schedule, it is called as a _____
    a) Serializable schedule
    b) Equivalent schedule
    c) Committed schedule
    d) None of the mentioned

60. Which of the following is not a type of a schedule?
    a) Partial schedule
    b) Dependent schedule
    c) Recoverable schedule
    d) None of the mentioned

61. Which of the following is a transaction isolation level as specified by SQL standard?
    a) Serializable
    b) Repeatable read
    c) Read committed
    d) All of the mentioned

62. 2. State true or false: Serializable level may allow both serializable and non-serializable executions
    a) True
    b) False

63. _____ allows only committed data to be read and further requires that no other transaction is allowed to update it between two reads of a data item by a transaction.
    a) Read uncommitted
    b) Serializable
    c) Repeatable read
    d) Read committed

64. _____ allows only committed data to be read, but does not require repeatable reads
    a) Read uncommitted
    b) Serializable
    c) Repeatable read
    d) Read committed

65. _____ allows uncommitted data to be read
    a) Read uncommitted
    b) Serializable
    c) Repeatable read
    d) Read committed

66. State true or false: All the isolation levels disallow dirty writes
    a) True

b) False

67. When is a timestamp allotted
    a) When execution begins
    b) When execution is taking place
    c) When execution is completed
    d) None of the mentioned

68. In _____ isolation each transaction is given its own version of the database
    a) Timestamp
    b) Snapshot
    c) Lock based
    d) All of the mentioned

69. What is the disadvantage of locking?
    a) Does not control concurrency
    b) Is not atomic
    c) Is not durable
    d) Has a poor degree of concurrency

70. A system is in a _____ state if there exists a set of transactions in which every transaction is waiting for another transaction in the set.
    a) Deadlock
    b) Starved
    c) Isolated
    d) None of the mentioned

71. Which of the following is not a method in deadlock handling
    a) Deadlock prevention
    b) Deadlock detection
    c) Deadlock recovery
    d) Deadlock distribution

72. Deadlocks can be prevented using
    a) Preemption and transaction rollbacks
    b) Wait and die scheme
    c) Wound-wait scheme
    d) All of the mentioned

73. State true or false: Wait die scheme is a non-preemptive technique
    a) True
    b) False

74. Lock timeouts have which of the following advantages?
    a) Unnecessary rollbacks do not occur
    b) Transactions do not starve
    c) It is easy to implement
    d) All of the mentioned

75. The _____ graph describes deadlocks precisely
    a) Wound wait graph
    b) Wait die graph
    c) Wait for graph
    d) None of the mentioned

76. How do we generally recover from a deadlock?
    a) By aborting all the transactions
    b) By rolling back all the transactions
    c) By rolling back only a selected number of transactions
    d) None of the mentioned

77. State true or false: Partial rollback is not possible.
    a) True
    b) False

78. Which of the following steps must be taken while choosing a victim?
    a) Avoiding starvation
    b) Number of transactions involved in rollback
    c) Data items used by the transaction
    d) All of the mentioned

Unit 3 : Concurrency Control

79. If a transaction has obtained a _____ lock, it can read but cannot write on the item
    a) Shared mode
    b) Exclusive mode
    c) Read only mode
    d) Write only mode

80. If a transaction has obtained a _____ lock, it can both read and write on the item
    a) Shared mode
    b) Exclusive mode
    c) Read only mode
    d) Write only mode

81. A transaction can proceed only after the concurrency control manager _____ the lock to the transaction
    a) Grants
    b) Requests
    c) Allocates
    d) None of the mentioned

82. If a transaction can be granted a lock on an item immediately in spite of the presence of another mode, then the two modes are said to be _____
    a) Concurrent
    b) Equivalent
    c) Compatible
    d) Executable

83. A transaction is made to wait until all _____ locks held on the item are released
    a) Compatible
    b) Incompatible
    c) Concurrent
    d) Equivalent

84. State true or false: It is not necessarily desirable for a transaction to unlock a data item immediately after its final access
    a) True
    b) False

85. The situation where no transaction can proceed with normal execution is known as _____
    a) Road block

b) Deadlock
c) Execution halt
d) Abortion

86. The protocol that indicates when a transaction may lock and unlock each of the data items is called as _____
a) Locking protocol
b) Unlocking protocol
c) Granting protocol
d) Conflict protocol

87. If a transaction Ti may never make progress, then the transaction is said to be _____
a) Deadlocked
b) Starved
c) Committed
d) Rolled back

88. The two phase locking protocol consists which of the following phases?
a) Growing phase
b) Shrinking phase
c) More than one of the mentioned
d) None of the mentioned

89. 11. If a transaction may obtain locks but may not release any locks then it is in _____ phase
a) Growing phase
b) Shrinking phase
c) Deadlock phase
d) Starved phase

90. 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

91. A system is in a _____ state if there exists a set of transactions in which every transaction is waiting for another transaction in the set.
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b) Starved
c) Isolated
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    b) False

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    b) By rolling back all the transactions
    c) By rolling back only a selected number of transactions
    d) None of the mentioned

98. State true or false: Partial rollback is not possible.
    a) True
    b) False

99. 9. Which of the following steps must be taken while choosing a victim?
    a) Avoiding starvation
    b) Number of transactions involved in rollback
    c) Data items used by the transaction
    d) All of the mentioned

100. Which of the following cannot be used to implement a timestamp
   a) System clock
   b) Logical counter
   c) External time counter
   d) None of the mentioned

101. A logical counter is _____ after a new timestamp has been assigned
   a) Incremented
   b) Decremented
   c) Doubled
   d) Remains the same

102. W-timestamp(Q) denotes?
   a) The largest timestamp of any transaction that can execute write(Q) successfully
   b) The largest timestamp of any transaction that can execute read(Q) successfully
   c) The smallest timestamp of any transaction that can execute write(Q) successfully
   d) The smallest timestamp of any transaction that can execute read(Q) successfully

103. R-timestamp(Q) denotes?
   a) The largest timestamp of any transaction that can execute write(Q) successfully
   b) The largest timestamp of any transaction that can execute read(Q) successfully
   c) The smallest timestamp of any transaction that can execute write(Q) successfully
   d) The smallest timestamp of any transaction that can execute read(Q) successfully

104. A _____ ensures that any conflicting read and write operations are executed in timestamp order
   a) Organizational protocol
   b) Timestamp ordering protocol
   c) Timestamp execution protocol
   d) 802-11 protocol

105. The default timestamp ordering protocol generates schedules that are
   a) Recoverable
   b) Non-recoverable
   c) Starving
   d) None of the mentioned

106. State true or false: The Thomas write rule has a greater potential concurrency than the timestamp ordering protocol
   a) True
   b) False

107. Which of the following timestamp based protocols generates serializable schedules?
   a) Thomas write rule
   b) Timestamp ordering protocol

c) Validation protocol
d) None of the mentioned

108. In timestamp ordering protocol, suppose that the transaction Ti issues read(Q) and TS(Ti)<W-timestamp(Q), then
a) Read operation is executed
b) Read operation is rejected
c) Write operation is executed
d) Write operation is rejected

109. In timestamp ordering protocol, suppose that the transaction Ti issues write(Q) and TS(Ti)<W-timestamp(Q), then
a) Read operation is executed
b) Read operation is rejected
c) Write operation is executed
d) Write operation is rejected

110. The _____ requires each transaction executes in two or three different phases in its lifetime
a) Validation protocol
b) Timestamp protocol
c) Deadlock protocol
d) View protocol

111. During _____ phase, the system reads data and stores them in variables local to the transaction.
a) Read phase
b) Validation phase
c) Write phase
d) None of the mentioned

112. During the _____ phase the validation test is applied to the transaction
a) Read phase
b) Validation phase
c) Write phase
d) None of the mentioned

113. During the _____ phase, the local variables that hold the write operations are copied to the database
a) Read phase
b) Validation phase
c) Write phase
d) None of the mentioned

114. Read only operations omit the _____ phase
   a) Read phase
   b) Validation phase
   c) Write phase
   d) None of the mentioned

115. Which of the following timestamp is used to record the time at which the transaction started execution?
   a) Start(i)
   b) Validation(i)
   c) Finish(i)
   d) Write(i)

116. Which of the following timestamps is used to record the time when a transaction has finished its read phase?
   a) Start(i)
   b) Validation(i)
   c) Finish(i)
   d) Write(i)

117. Which of the following timestamps is used to record the time when a database has completed its write operation?
   a) Start(i)
   b) Validation(i)
   c) Finish(i)
   d) Write(i)

118. State true or false: Locking and timestamp ordering force a wait or rollback whenever a conflict is detected.
   a) True
   b) False

119. State true or false: We determine the serializability order of validation protocol by the validation ordering technique
   a) True
   b) False

120. In _____ schemes, each write operation creates a new version of Q
   a) Multiversion
   b) Snapshot isolation
   c) Lock based
   d) Timestamp

121. If the first update is overwritten by a second, it is called as a _____ update
   a) Useful
   b) Overlapping
   c) Lost
   d) Concurrent

122. State true or false: Snapshot isolation prevents lost updates
   a) True
   b) False

123. Which of the following is a variant of snapshot isolation
   a) First committer wins
   b) First updater wins
   c) More than one of the mentioned
   d) None of the mentioned

124. Under _____ the system uses locking mechanism that applies only to updates
   a) First updater wins
   b) First committer wins
   c) First writer wins
   d) None of the mentioned

125. The situation in which each pair of transactions has read a data written by the other, but there is no data written by the transactions is called as _____
   a) Deadlock
   b) Read skew
   c) Deadlock skew
   d) Write skew

126. Oracle uses _____ for the serializable isolation level
   a) Multiversion scheme
   b) Timestamp protocol
   c) Lock based protocol
   d) Snapshot isolation

127. State true or false: Snapshot isolation has low overhead
   a) True
   b) False

128. In _____ no two aborts occur unless two concurrent transactions update the same data item.
   a) Multiversion scheme
   b) Timestamp protocol
   c) Lock based protocol

d) Snapshot isolation

129. Which of the following transactions can multiversion two phase locking protocol not differentiate.
a) Read only transactions
b) Update transactions
c) All of the mentioned
d) Double operator transactions

Unit 4 : Recovery System

130. Which of the following can cause a transaction failure
a) Logical error
b) System error
c) More than one of the mentioned
d) None of the mentioned

131. If the transaction can no longer continue with its normal execution because of some internal condition, it is called as a _____
a) Logical error
b) System error
c) System crash
d) None of the mentioned

132. If a system has entered and undesirable state due to which it is unable to continue with normal execution, it is called as _____
a) Logical error
b) System error
c) System crash
d) None of the mentioned

133. If there is a hardware malfunction or a bug in the database that causes the loss of content of volatile storage, it is called as _____
a) Logical error
b) System error
c) System crash
d) None of the mentioned

134. The assumption that the hardware errors bring the system to a halt is called as _____
a) Halter assumption
b) Phantom assumption
c) Fail-stop assumption
d) Disk failure

135. Which of the following is not a classification of storage
   a) Volatile storage
   b) Nonvolatile storage
   c) Stable storage
   d) None of the mentioned

136. If a failure has occurred in the midst of a transfer, it is called as _____
   a) Successful completion
   b) Partial failure
   c) Total failure
   d) None of the mentioned

137. State true or false: The destination block has incorrect information in case of a total failure
   a) True

138. The partitions of the database into fixed length storage units are called as _____
   a) Blocks
   b) Tuples
   c) Relations
   d) None of the mentioned

139. The blocks residing on the disk are referred to as _____
   a) Physical blocks
   b) Buffer blocks
   c) Disk blocks
   d) Disk buffer

140. The area of memory where blocks temporarily reside is called as _____
   a) Block buffer
   b) Disk buffer
   c) Physical buffer
   d) None of the mentioned

141. The most widely used structure for recording database modification is called as _____
   a) Log
   b) List
   c) Queue
   d) Stack

142. An update log record describes a _____ database write
   a) Single
   b) Double
   c) Triple

d) Quadruple

143. Which of the following fields does the update log record have?
a) Transaction identifier
b) Data-item identifier
c) Old value
d) All of the mentioned

144. The unique identifier of the transaction that performed the write operation is called as _____
a) Transaction identifier
b) Data-item identifier
c) Old value
d) New value

145. The value of the data item prior to the write is called as _____
a) Transaction identifier
b) Data-item identifier
c) Old value
d) New value

146. If a transaction does not modify the database until it has committed it is said to use a _____ modification technique
a) Deferred
b) Immediate
c) More than one of the mentioned
d) None of the mentioned

147. We say that a transaction has been _____ when its commit log record has been output to stable storage.
a) Locked
b) Completed
c) Committed
d) Released

148. State true or false: Using checkpoints reduces overhead
a) True
b) False

149. A _____ checkpoint is a checkpoint where transactions are allowed to perform updates even while buffer blocks are being written out.
a) Temporary
b) Fuzzy
c) Permanent

d) Recovery

150. If the database modifications occur while the transaction is still active, the transaction is said to use the _____ modification technique
a) Deferred
b) Immediate
c) More than one of the mentioned
d) None of the mentioned

151. Which of the following is not a feature of a good relational design?
a) Specifying primary keys
b) Specifying foreign keys
c) Preserving integrity constraints
d) Allowing redundancy of attributes

152. The dependency rules specified by the database designer are known as _____
a) Designer dependencies
b) Database rules
c) Functional dependencies
d) None of the mentioned

153. If the decomposition is unable to represent certain important facts about the relation, then such a decomposition is called as?
a) Lossless decomposition
b) Lossy decomposition
c) Insecure decomposition
d) Secure decomposition

154. If the decomposition is able to represent all the facts about the relation then such a decomposition is called as?
a) Lossless decomposition
b) Lossy decomposition
c) Insecure decomposition
d) Secure decomposition

155. A domain whose elements are indivisible is called as _____
a) Unique domain
b) Proxy domain
c) Atomic domain
d) Multiple domain

156. If all the domains are atomic then the relational schema is in _____ normal form
a) 1

b) 2
c) 3
d) 4

157. State true or false: Composite attributes have non-atomic domains.
a) True
b) False

158. State true or false: Redundancy is desired in a relational schema
a) True
b) False

159. An instance of a relation that satisfies all real world constraints is known as?
a) Proper relation
b) Ideal relation
c) Perfect relation
d) Legal relation

160. If K → R then K is said to be the _____ of R
a) Candidate key
b) Foreign key
c) Super key
d) Domain

161. X → Y holds on a schema k(K) if?
a) At least one legal instance satisfies the functional dependency
b) No legal instance satisfies the functional dependency
c) Each and every legal instance satisfies the functional dependency
d) None of the mentioned

162. X→ Y is trivial if?
a) X ⊂ Y
b) Y ⊂ X
c) X ⊇ Y
d) None of the mentioned

163. Which of the following is not a condition for X→ Y in Boyce codd normal form?
a) X → Y is trivial
b) X is the superkey for the relational schema R
c) Y is the superkey for the relational schema R
d) All of the mentioned

164. Which of the following is used to express database consistency?
a) Primary keys
b) Functional dependencies

c) Check clause
d) All of the mentioned

165. Which of the following is not a condition for the third normal form in the case of X◊Y?
a) X→ Y is trivial
b) X is the superkey for R
c) Each attribute in Y-X is a candidate key for R
d) Each attribute in X-Y is a candidate key for R

166. F+ is called as the _____ of F
a) Closure
b) Sum
c) Cartesian product
d) None of the mentioned

167. State true or false: A functional dependency must first satisfy the second normal form to satisfy the third normal form.
a) True
b) False

168. State true or false: The fourth normal form does not exist and it is instead called as the BCNF.
a) True
b) False

169. A functional dependency f on R is _____ by a set of functional dependencies F on r if every instance of r(R) that satisfies f also satisfies F.
a) Logically Defined
b) Logically Derived
c) Logically implied
d) None of the mentioned

170. If F is a set of functional dependencies, then the closure of F is denoted by?
a) F*
b) Fo
c) F+
d) F

171. If a functional dependency is reflexive, B is a subset of A and A is the set of attributes, then
a) B→A holds
b) A→B holds
c) AB→C holds
d) None of the mentioned

172. State true or false: Armstrong's axioms allow us to generate all F+ for any given F
a) True
b) False

173. Armstrong axioms are called sound because?
a) They are expensive
b) They cannot generate correct functional dependencies
c) They allow us to generate the complete closure
d) They cannot generate incorrect functional dependencies

174. State true or false: Functional dependencies are transitive
a) True
b) False

175. If A→B, A→ C then which of the following is true?
a) A→BC
b) A→B
c) A→C
d) All of the mentioned

176. If B is an attribute and A→B, Then B is said to be _____ by a.
a) Logically implied
b) Functionally implied
c) Logically determined
d) Functionally determined

177. We say that a decomposition having the property F'+ = F+ is a _____ decomposition.
a) Dependency losing
b) Dependency preserving
c) Lossless
d) None of the mentioned

178. A _____ Fc for F is a set of dependencies such that F logically implies all dependencies in Fc, and Fc logically implies all dependencies in F.
a) Canonical cover
b) Complete cover
c) Canonical dependency
d) Canonical clause

179. What does the BCNF decomposition algorithm do?
a) States a method to decompose a relation satisfying BCNF
b) States a method for joining two relations satisfying BCNF
c) States a method to decompose a relational schema such that there are no multiple occurrences

d) None of the mentioned

180. The 3NF decomposition algorithm is also called as _____
a) 3NF normal algorithm
b) 3NF synthesis algorithm
c) 3NF generator
d) Functional dependence algorithm

181. Which of the following is desirable in a database design with functional dependencies?
a) BCNF
b) Losslessness
c) Dependency preservation
d) All of the mentioned

182. State true or false: SQL specifies a way of mentioning functional dependencies
a) True
b) False

183. State true or false: Most current database systems do not support constraints on materialized view
a) True
b) False

184. Multi valued dependencies are also called as _____
a) Equality generating dependencies
b) Tuple generating dependencies
c) Multi-purpose dependencies
d) None of the mentioned

185. Functional dependencies are sometimes referred to as _____
a) Equality generating dependencies
b) Tuple generating dependencies
c) Multi-purpose dependencies
d) None of the mentioned

186. The _____ is a set of all functional and multi values dependencies implied by a set of functional dependencies
a) Star
b) Closure
c) Derivation
d) Evolution

187. State true or false: If a relational schema is in _____ NF and A is a subset of R and B is also a subset of R then it is that A is a superkey is a trivial multi values dependency.
a) 1

b) 2
c) 3
d) 4

188. Which of the following normal forms does not exist?
a) BCNF
b) PJNF
c) 5NF
d) None of the mentioned

189. Which of the following is not a process of generating a good relational schema?
a) Converting ER diagrams to relational schema
b) Decomposing the relational schema while satisfying functional dependencies
c) Joining multiple relations together to form a single relation containing all the attributes
d) A design of relations which is then tested and modified to satisfy given normal forms

190. What is unique role assumption?
a) The attribute name has a unique meaning in the database
b) The attributes are all unique
c) No two tuples have even a single same value in a relation
d) None of the mentioned

191. The process of making a normalized schema unnormalized is called as _____
a) Unnormalization
b) Denormalization
c) Renormalization
d) Annormalization

192. State true or false: Crosstabs are not desirable in a database design
a) True
b) False

193. The data that have a time interval associated with them during which they are valid are called as _____
a) Timed data
b) Temporal data
c) Model data
d) Clocked data

194. The value of the data at a particular time is called as?
a) Instance
b) Picture
c) Snapshot

d) None of the mentioned

195. 7. Functional dependencies that have a time associated with them during which they are valid are called as_____
a) Timed functional dependencies
b) Clocked functional dependencies
c) Temporal functional dependencies
d) Modeled functional dependencies

196. State true or false: Overlapping time intervals cannot be prevented
a) True
b) False

197. Which of the following is the time of temporal data that record when a fact was recorded in a database?
a) Transaction time
b) Valid time
c) Enter time
d) Exit time

198. To specify the foreign keys in relations referencing temporal data we need to specify _____
a) The time interval
b) The Boolean value for the working
c) The integer corresponding to the relation number
d) None of the mentioned

Unit 5 : PLSQL

199 Which statement is package specification or body of a stored subprogram?

1. Package Specification only requires recompilation
2. Package body only requires recompilation
3. Both package & body requires recompilation
4. Both package & body does not require recompilation.

200 The packaged procedure that makes data in form permanent in the Database is

1. Post
2. Post form

3. Commit form
4. None of the above

201 Which of the following do not execute multiple PL/SQL programs simultaneously?

1. Oracle Advanced Queuing
2. DBMS_JOB
3. DBMS_SQL
4. Pipelined Functions

202 Which package can you use to output values and messages stored procedures?

1. DBMS_DISPLAY
2. DBMS_OUTPUT
3. DBMS_LIST
4. DBMS_DESCRIBE

203 Which of the package statement is true?

1. Packages can be nested.
2. You can pass parameters to packages.
3. A package is loaded into memory each time it is invoked.
4. The contents of packages can be shared by many applications.

Answers :

1	2	3	4	5	6	7	8	9	10
d	c	b	a	a	b	a	b	c	d
11	12	13	14	15	16	17	18	19	20
a	c	d	c	b	c	a	c	a	a
21	22	23	24	25	26	27	28	29	30
b	c	a	b	a	b	d	a	c	d
31	32	33	34	35	36	37	38	39	40
b	c	a	b	a	b	d	a	c	d
41	42	43	44	45	46	47	48	49	50
d	c	d	b	b	a	c	a	b	d
51	52	53	54	55	56	57	58	59	60
b	a	a	c	a	a	a	a	b	C
61	62	63	64	65	66	67	68	69	70
a	a	a	c	b	d	b	a	d	a
71	72	73	74	75	76	77	78	79	80
a	d	d	a	d	c	c	b	d	a
81	82	83	84	85	86	87	88	89	90
b	a	c	a	a	b	a	b	c	A
91	92	93	94	95	96	97	98	99	100
b	a	d	d	a	d	c	c	b	d
101	102	103	104	105	106	107	108	109	100
a	a	b	c	c	a	b	c	a	B
111	112	113	114	115	116	117	118	119	120
a	c	a	c	a	d	d	a	d	d
121	122	123	124	125	126	127	128	129	130
c	a	b	c	c	a	b	b	a	a
131	132	133	134	135	136	137	138	139	140
b	a	a	d	a	c	a	c	a	b
141	142	143	144	145	146	147	148	149	150
b	d	c	b	a	c	a	b	b	d
151	152	153	154	155	156	157	158	159	160
c	b	a	c	a	b	b	d	c	C
161	162	163	164	165	166	167	168	169	170
d	a	c	d	d	a	a	b	c	c
171	172	173	174	175	176	177	178	179	180
b	a	d	a	d	d	b	a	a	b
181	182	183	184	185	186	187	188	189	190
a	b	a	b	a	b	d	d	c	a
191	192	193	194	195	196	197	198	199	200

b	**a**	**b**	**c**	**c**	**b**	**a**	**a**	**a**	**c**
201	**202**	**203**							
c	**b**	**d**							