

DOMANDE – RISPOSTE QUESTIONARIO DBMS

1) During the 2-Phase commit protocol when the resource manager writes the 'ready' record in the Log:

A) It waits for global decision that will be sent by the coordinator of the distributed transaction

b) It defines the beginning of the Uncertainty window for the party

c) All the statements are correct

d) It loses its autonomy



2) If item set ABC is retrieved by a support smaller than the minimum support threshold

a) None of the statements are correct

b) Then sets AB, AC and BC don't have support larger than threshold

c) Then set ABCD may have support larger than the min support threshold

d) Then set A, B and C don't have support larger than the min s. threshold

E) Item set A, B, CD does not have support larger than the min s. threshold

3) The k-NN classification algorithm

A) Requires the definition of a distance measure between dataset INS...

b) None of the statements are correct

c) Can be exploited only for categorical attributes

d) Generates the model very efficiently

e) Yields an interpretable model

4) The write ahead log protocol

a) Requires writing the After State in the log before writing the database

B) Allows the execution of the undo operation

c) None of the statements are correct

D) requires writing the After State in the log before commit

e) Allows the execution of the redo operation

5) If a schedule is CSR

A) Allows avoiding the dirty read anomaly

b) It is always also 2PL

c) None of the statements are correct

D) It is always also VSR

e) It is never 2PL

6) Discretization

A) Yields reduction in the number of values of an attribute domain

b) None of the statements are correct

c) Yields a reduction in the number of instances of a table

d) Allows the selection of attributes characterized by a discrete algorithm

e) Yields a reduction in the number of attributes of a table

7) If a resource X is blocked with a SL LOCK

a) An SIXL LOCK request by a different transaction on the same resource is compatible

b) None of the statements are correct

c) An XL LOCK request by a different transaction on the same resource is compatible

d) An IXL LOCK request by a different transaction on the same resource is compatible

E) An ISL LOCK request by a different transaction on the same resource is compatible

8) If a resource X is blocked with a SIXL LOCK

- a) An XL LOCK request by a different transaction on the same resource is compatible
- B) An ISL LOCK request by a different transaction on the same resource is compatible**
- c) None of the statement is correct
- d) An SL LOCK request by a different transaction on the same resource is compatible
- e) An IXL LOCK request by a different transaction on the same resource is compatible

9) When the Test Set is defined by means of "build out"(or hold out)

- a) The training set includes at least three different classes
- b) None of the statements are correct
- c) Every record of the labeled dataset takes once the role of test data
- d) The labeled dataset is partitioned in k-folds
- E) The labeled dataset is normally very large**

10) If item set ABC is retrieved by a support larger than the minimum support threshold

- a) None of the statements are correct
- B) Item A, B and C must have support larger than the minimum support threshold**
- c) Then set ABCD doesn't have support larger than the minimum support threshold
- d) AB and BC must have support larger than the minimum support threshold but AC may not have support larger than the minimum support threshold
- e) Then set ABCD must have support larger than the minimum support threshold

11) Hierarchical algorithms

- a) Have linear complexity in the number of instances in the dataset
- B) Generate nested clusters**
- c) Are based on measuring the density of a point neighborhood
- d) Requires the specification of the final cluster number
- e) None of the statements are correct

12) A failure occurs in a centralized transactional System. The most recent checkpoint record contains transaction A and B. By reading the log file forward starting from the checkpoint record, the following sequence of records is found: commit of transaction B, begin of transaction C and D, rollback of transaction D. The recovery procedure:

- a) Does not perform any operation for transaction C
- b) Must undo transaction A, B and D
- C) Undoes transaction D, because the rollback record of D is found in the log file**
- d) None of the statements are correct
- e) Does not perform any operation for transaction B, because B was in the checkpoint record and its corresponding commit is in the log

13) La trasparenza di allocazione

- a) nessuna risposta è corretta
- b) permette di ignorare la presenza di fragment
- c) richiede di conoscere l'allocazione di fragment sui DBMS server
- D) richiede di conoscere la definizione di fragment di una tabella ma non la loro (?) sui nodi (DBMS server)**
- e) richiede la scrittura di istruzioni SQL nel dialetto SQL specifico del (?)

13) EN) the transparent of allocation

- a) All the statements are incorrect
- b) Allowance of presentation of fragments
- c) Requests the knowledge of the allocation of fragments on DBMS server
- D) Requests of knowledge of definition of fragments of one table, but they are not on nodes (DBMS SERVER)**
- e) Requests the writing of SQL in a fraction in specific SQL language (???)

14) When the test set is defined by means of cross-validation

- a) During the validation process k different classifiers are generated
- b) The labeled dataset is partitioned in k folds
- c) Recovery record of the labeled dataset takes once the role does the test data
- d) The training set always includes k-1 folds
- E) All statements are correct**

15) The k-means algorithm

- a) Requires a single data set scan to define the final clusters
- B) is robust to noise and outliers (?)
- C) None of the statements are correct**
- D) Generates nested clusters
- E) is appropriate for non-globular clusters

16) The lost update anomaly

- A) All the statements are correct**
- b) Is avoided if the schedule is VSR
- c) Is avoided if the schedule is strict 2PL
- d) Is avoided if the schedule is 2PL
- e) Is avoided if the schedule is CSR

17) The DBSCAN algorithm

- a) Does not require the specification of the final number
- B) is appropriate for non globular clusters
- C) is robust to noise and outliers
- d) Is based on measuring the density of a point neighborhood
- E) All statements are correct**

18) Feature Selection

- A) Yields a reduction in the number of attributes of tables**
- b) None of the statements are correct
- c) Yields a reduction in the number of instances of a table
- d) Yields a reduction in the number of values of an attribute domain
- E) Allows stratified sampling on a table

19) The commit precedent protocol

- a) Allows the execution of undo operations
- b) Requires writing before start in the log before comment
- c) Allows the execution of redo operation
- d) Requires the writing before state in the log before writing the
- e) None of these

20) Given an associate rule $A \rightarrow B$, which of the following states are correct

- a) Lift = 1 means maximal correlation between A and B
- b) Lift cannot be > 1
- c) Non of theses states
- d) Lift > 1 means that A is correlated with absence of item B
- e) Lift < 1 means that A is correlated with absence of item B

21) Sampling

- A) Yields a reduction in the number of the attributes of a table
- B) Yields a reduction in the number of values of an attribute domain
- C) Allows the notification of the variation range of an attribute
- D) Yields a reduction in the number of instances of a table
- E) None of these

22) A dirty read anomaly

- b) Is avoided only if the schedule is strict to PL