



Discussions (0)

**Question 21 :****View Solutions (0)****6406531045004**Total Mark : 3.00 | Type :
SA

Consider a **Block nested loop join** for the two relations, **instructor** and **department**. Assuming the worst-case memory availability and **instructor** as the outer relation, the provided details are as follows:

- Total number of block transfers: 25000
- Total number of seeks required: 500
- Number of block in the outer relation: 250

What is the number of blocks in the inner relation?

Answer (Numeric):

Answer

Accepted Answer : 100**Check Answer**

[Discussions \(0\)](#)**Question 13 :**[View Solutions \(0\)](#)**6406531044996**Total Mark : 3.00 | Type :
MSQConsider the following two schedules **S1** and **S2** and three transactions T_1, T_2, T_3 :**S1** : $R_1(X); R_3(Y); W_1(X); R_2(X); W_3(Y); W_2(X); R_1(Y); W_1(Y);$
S2 : $R_3(Y); R_1(X); W_1(X); R_2(X); W_3(Y); R_1(Y); W_1(Y); W_2(X);$ where $R_i(X)$ denotes a read operation by transaction T_i on a data item X , $W_i(X)$ denotes a write operation by transaction T_i on a data item X , C_i denotes a commit by T_i , and A_i denotes an abort by T_i .

Which among the following statements is/are correct?

**OPTIONS :**

- S1** and **S2** are conflict equivalent.
- S1** and **S2** are not conflict equivalent.
- S1** and **S2** are view equivalent.
- S1** and **S2** are not view equivalent.

[Check Answer](#)

Your score : 0

[Discussions \(0\)](#)

Question 12 :**View Solutions (0)****6406531044995**Total Mark : 3.00 | Type :
MSQ

Consider the Schedule given below:



T_1	T_2	T_3
		R(D)
	R(A)	
R(C)		
	W(A)	
	R(B)	
	R(C)	
		R(E)
R(A)		
	R(D)	
W(A)		
		W(B)
	R(E)	

Which of the following statements is/are correct about the given Schedule?

OPTIONS : A precedence graph of the schedule is acyclic The given schedule is not view serializable The given schedule is view serializable but not conflict serializable The given schedule is view serializable and conflict serializable**Check Answer****Your score : 0****Discussions (0)**

Question 18 :**View Solutions (0)****6406531045003**Total Mark : 3.00 | Type :
MSQ

Consider the ER Diagram as shown below:

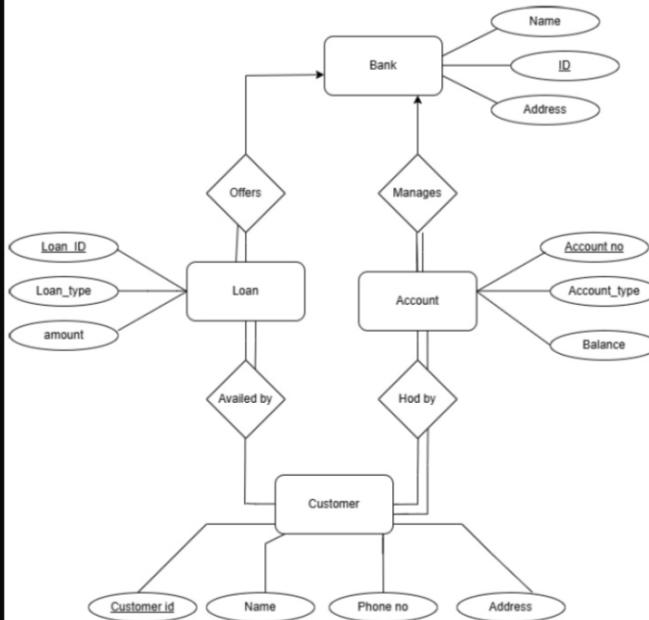


Figure 4: Banking System

Which of the following statement(s) is/are correct?

OPTIONS :

- A bank offers more than one loan
- An account is managed by more than one bank
- Every loan must be availed by at least one customer
- Every customer must be holding at least one account

Check Answer**Your score : 3****Discussions (0)**



Check Answer



Discussions (0)

**Question 17 :****6406531045002**

Total Mark : 3.00 | Type :

MSQ



View Solutions (0)

Consider a relation schema $R(A,B,C,D,E,F)$ and the set of functional dependency, $\mathcal{F} = \{B \rightarrow D, E \rightarrow F, D \rightarrow E, D \rightarrow B, F \rightarrow BD\}$.

This schema is decomposed into two relations $R1(A,B,D,E)$ and $R2(B,C,D,F)$.

Which of the following statements is/are true regarding the decomposition of $R1$ and $R2$?

OPTIONS :

- The decomposition of R into $R1$ and $R2$ is dependency preserving.
- The decomposition of R into $R1$ and $R2$ is lossless.
- The schema $R1$ is in 3NF.
- The schema $R2$ is in 2NF.



Check Answer

Your score : 1



StudentName → Major



Check Answer

</>

Discussions (0)



Question 21:

View Solutions (0)

6406531046625

Total Mark : 3.00 | Type :
SA

Consider a **Block nested loop join** for the two relations, **instructor** and **department**. Assuming the worst-case memory availability and **instructor** as the outer relation, the provided details are as follows:

What is the number of blocks in the inner relations?

- Total number of block transfers: 30000
- Total number of seeks required: 1000
- Number of block in the outer relation: 500



Answer (Numeric):

Answer

Check Answer

Discussions (0)





Identify the correct relational schema for the relationship set **Bank**, **Account** and **Manages**

Note: The primary key is underlined.

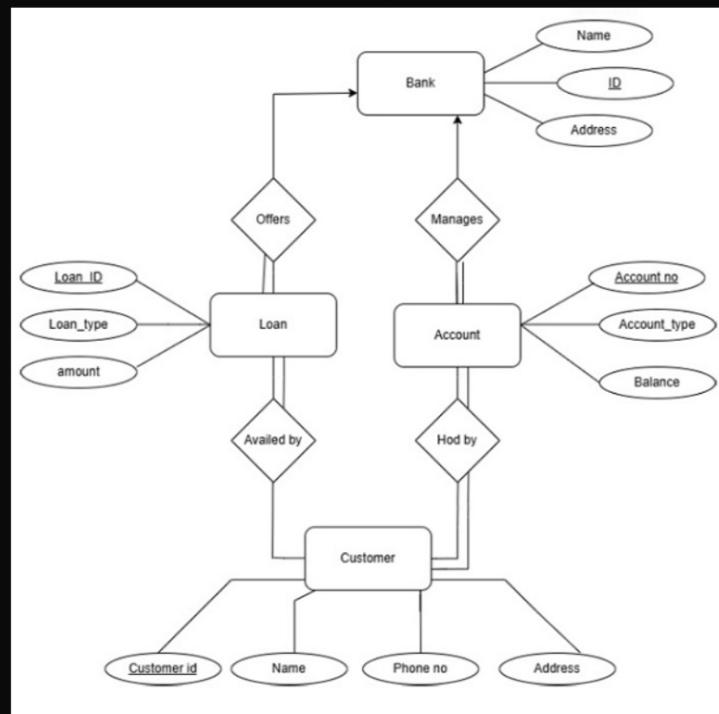


Figure 2: Banking System

OPTIONS :

Bank(ID, Name, Address)

Account(Account_no, Account_type, Balance, ID)
No table required for Manages

Bank(ID, Account_no, Name, Address)

Account(Account_no, Account_type, Balance)
No table required for Manages

No tables required for Bank, Account

Manages(Account_no,ID)

Bank(ID, Name, Address)

Account(Account_no, Account_type, Balance, ID)
Manages(Account_no,ID)

**Question 4 :****View Solutions (1)****640653902399**Total Mark : 2.00 | Type :
MCQ

Given below are four statements. Match each of them with the corresponding property in the set of ACID properties.

Statement 1: Any data written to the database must be valid according to all the defined rules like the check and key constraints and triggers.

Statement 2: Every completed transaction is saved into the secondary storage.

Statement 3: During money transfer, either the amount debited from the source account must be credited to the destination account or the money should not be debited from the source account at all.

Statement 4: If multiple transactions are being executed concurrently, then the final result should be the same irrespective of the sequence in which the transactions were executed.

Let A denote Atomicity, C denote Consistency, I denote Isolation and D denote Durability. From among the given options, find the correct match.

OPTIONS : 1 - A, 2 - C, 3 - I, 4 - D 1 - C, 2 - D, 3 - A, 4 - I 1 - C, 2 - D, 3 - I, 4 - A 1 - I, 2 - A, 3 - D, 4 - C**Check Answer****Your score : 2.000**

[Discussions \(0\)](#)**Question 6 :****640653902403**[View Solutions \(0\)](#)Total Mark : 2.00 | Type :
MCQ

Consider the table Players as given below:

PID	name	gender	level
001	Percy	Male	International
002	Jason	Male	District
003	Hazel	Female	National
004	Leo	Male	National
005	Rayna	Female	District
006	Annabeth	Female	National
007	Frank	Male	International
008	Piper	Female	District

Table 1: Players

Let us create two different bitmap indices, one on the *gender* attribute and the other on the *level* attribute. Which of the following options will give the correct result if we want to find all females who are playing in the 'District' level.

Note: Options are in the form of gender (operation) level

OPTIONS :

- 00101101 AND 01001001
- 00101101 OR 00110100
- 11010010 AND 01001001
- 11010010 OR 00110100

 [Check Answer](#)

Your score : 2.000

[Discussions \(0\)](#)



Check Answer



Discussions (0)

**Question 7 :**

View Solutions (0)

640653902401

Total Mark : 3.00 | Type :

MCQ

Consider a schedule S given below where $W_i(a)$ means that transaction T_i is performing a write operation on data item (a) and similarly $R_i(a)$ means that transaction T_i is performing a read operation on data item (a) .

 $S : R_1(B), R_4(A), W_2(A), W_3(C), R_1(B), W_2(A), W_3(A), W_4(D), R_2(D), R_1(D)$

Identify the appropriate time stamp ordering for transactions T_1, T_2, T_3 and T_4 that allows to execute the given schedule S using the time stamp protocol.

OPTIONS : 20, 30, 25, 15 15, 20, 25, 30 20, 25, 30, 15 20, 25, 15, 30

Check Answer

Your score : 0



Discussions (0)



Discussions (0)

**Question 12 :****640653902407**Total Mark : 3.00 | Type :
MSQ

Consider the following schedule S.

 $S : R_1(A), R_2(B), W_1(C), Com_1, R_3(B), R_3(C), W_2(B), W_3(A), Com_2, Com_3$

Which of the following options is/are correct?

**OPTIONS :**

- Schedule S can not be two-phase lockable.
- Schedule S can be two-phase lockable.
- Schedule S can be strict two-phase lockable.
- Schedule S is conflict serializable.

**Check Answer****Your score : 0**

Discussions (0)

**Question 13 :**

View Solutions (0)





Discussions (0)

**Question 2 :****640653816075**

View Solutions (0)

Total Mark : 2.00 | Type :
MCQ

Let us consider the following statistics for searching a condition within a given relation.

- Number of blocks containing record of the relation (b) = 400
- Time to transfer one block (t_b) = 0.6 milliseconds
- Time for one seek (t_s) = 8 milliseconds



What will be the cost of selection query using linear search file scan?

OPTIONS : 24.8 milliseconds 128 milliseconds 248 milliseconds 16.6 milliseconds**Check Answer****Your score : 0**

Discussions (0)

**Question 3 :****640653816076**

View Solutions (0)

Total Mark : 2.00 | Type :
MCQ

[Discussions \(0\)](#)

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**Question 8 :****640653816082**[View Solutions \(0\)](#)

Total Mark : 2.00 | Type :

MSQ

Consider three transaction T_5, T_{10}, T_{15} having time-stamps 5, 10 and 15 respectively. Which of the following options is/are correct according to deadlock prevention Wound-Wait Scheme?

**OPTIONS :** If T_{10} requests a data item held by T_5 , then it will be preempted from T_5 and T_5 will be suspended ("wounded") If T_5 requests a data item held by T_{10} , then it will be preempted from T_{10} and T_{10} will be suspended ("wounded") If T_{15} requests a data item held by T_{10} , then T_{15} will "wait" If T_{10} requests a data item held by T_{15} , then T_{10} will "wait"[Check Answer](#)

Your score : 0

[Discussions \(0\)](#)**Question 9 :****640653816078**[View Solutions \(0\)](#)Total Mark : 3.00 | Type :
MSQ

Consider the ER Diagram given below for the UEFA Champions League:





Your score : 3

Discussions (0)



Question 14 :

640653816092

View Solutions (0)

Total Mark : 1.00 | Type : SA

Consider the following schedule S with three transactions T1, T2, T3 and T4 :

S: R2(D); W2(D); R1(A); W1(A); R3(C); W3(C); W4(B)

The number of serial schedule for given schedule S is....



Answer (Numeric):

Answer

Accepted Answer : 24



Check Answer

Your score : 0

Discussions (0)



Question 15 :

640653816087

View Solutions (0)

Total Mark : 2.00 | Type : SA

Consider the following relational schema R(A, B, C, D, E, F, G) with the given list of functional dependencies:

 $\mathcal{F} = \{A \rightarrow BC, D \rightarrow A, E \rightarrow G, CD \rightarrow F\}$ 



640653816093

Consider the table Points_Table given below to answer the given subquestions.

Team_ID	Team_Name	Country	Wins	Losses	Draw	Total_Points
001	Barcelona	Spain	8	1	2	16
002	Real Madrid	Spain	6	3	3	12
003	Arsenal	England	5	4	3	10
004	Man United	England	4	5	2	8
005	PSG	France	4	4	3	8
006	Bayern	Germany	3	6	2	6
007	Man City	England	2	4	5	4

Table 1: Points_Table

Discussions (0)

**Question 21:****640653816094**

View Parent QN

View Solutions (0)

Total Mark : 3.00 | Type : SA

What will be the output of the following SQL query:

```
SELECT Count(*)  
FROM ( ( SELECT Team_Name, Country  
        FROM Points_Table) AS P  
      NATURAL JOIN ( SELECT Country, Team_ID, Wins, Total_Points  
                     FROM Points_Table) AS Q )  
WHERE Wins>=5 and Total_Points>10
```

Answer (Numeric):

2

Accepted Answer : 4

Check Answer

Your score : 0



Check Answer

Your score : 0

Discussions (0)

**Question 17 :****640653816091**

View Solutions (0)

Total Mark : 3.00 | Type : SA

Consider the following schedule S with four transactions T1, T2, T3, T4:

S: R2(A), W2(A), W4(A), W4(B), R3(B), W3(C), R4(C), R1(C), R2(D), W3(D)

Where, Ri(A) denotes a read operation by transaction Ti on a data item A, Wi(A) denotes a write operation by transaction Ti on a data item A.

What is the possible number of conflict serializable schedules of the above schedule S?

Answer (Numeric):

Answer

Accepted Answer : 0

Check Answer

Your score : 0

Discussions (0)



Check Answer

Discussions (0)



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Question 19 :

View Solutions (0)

640653816089

Total Mark : 4.00 | Type : SA

Consider the table Students given below:

ID	Name	Department	Marks
001	Harry	Comp. Sci.	90
002	Louis	Maths	88
003	Liam	History	80
004	Niall	Comp. Sci.	86
005	Zayn	History	91
006	Luke	Geography	82
007	Ashton	Maths	87
008	Bradley	Music	78
009	Connor	Biology	92
010	Alex	Music	100

Let hash function $h(x)$ generate 16-bit binary hash values for the distinct elements in *Department* attribute:

Comp. Sci.- 1100 0010 1110 0101
History- 1000 1010 0101 1110
Maths- 0111 1100 0011 0110
Geography- 1110 0101 0000 1101
Music- 0100 1010 1111 1011
Biology- 0011 1111 1010 0101

If we insert the records in the following order:

Harry, Liam, Niall, Connor, Bradley, Luke, Louis, Zayn, Alex, Ashton.

Considering bucket size as 2, using dynamic hashing technique, how many minimum number of buckets will be required to distribute all the records?

Answer (Numeric):

Answer

Accepted Answer : 6

Check Answer

Your score : 0

Discussions (0)



**Question 19 :****View Solutions (0)****640653815462**

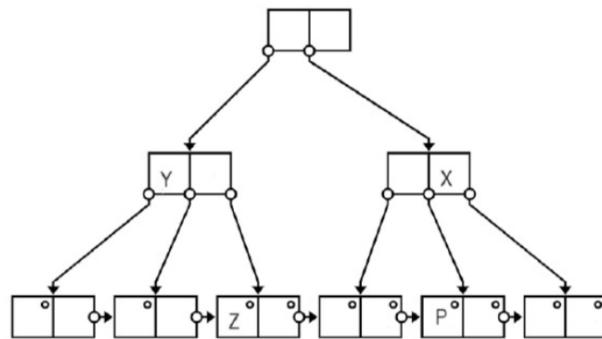
Total Mark : 4.00 | Type : SA

The following key values are inserted into a B^+ tree of order 3 in the given sequence.

The tree is initially empty.

5,9,13,17,3,11,1,20,14,7

Given below is the structure of the tree after creation:



What will be the result of the following expression?

$X + 2Y - 3Z + P$

Answer (Numeric):**Answer****Accepted Answer : 21****Check Answer****Your score : 0****Discussions (0)****Question 20 :**

Total Mark : 0.00 | Type :



**Question 9 :**

View Solutions (0)

640653815459Total Mark : 2.00 | Type :
MSQ

Consider three transaction T_5, T_{10}, T_{15} having time-stamps 5, 10 and 15 respectively. Which of the following options is/are correct according to deadlock prevention Wait-Die Scheme?

OPTIONS :

- If T_5 requests a data item held by T_{10} then T_5 will "wait"
- If T_5 requests a data item held by T_{10} then T_{10} will "wait"
- If T_{15} requests a data item held by T_{10} , then T_{10} will be killed ("die")
- If T_{15} requests a data item held by T_{10} , then T_{15} will be killed ("die")

Check Answer

Your score : 0

Discussions (0)

**Question 10 :**

View Solutions (0)

640653815452Total Mark : 3.00 | Type :
MSQ

Consider the ER Diagram given below for the UEFA Champions League:



**Question 8 :**

View Solutions (0)

640653816082Total Mark : 2.00 | Type :
MSQ

Consider three transaction T_5, T_{10}, T_{15} having time-stamps 5, 10 and 15 respectively. Which of the following options is/are correct according to deadlock prevention Wound-Wait Scheme?

OPTIONS : If T_{10} requests a data item held by T_5 , then it will be preempted from T_5 and T_5 will be suspended ("wounded") If T_5 requests a data item held by T_{10} , then it will be preempted from T_{10} and T_{10} will be suspended ("wounded") If T_{15} requests a data item held by T_{10} , then T_{15} will "wait" If T_{10} requests a data item held by T_{15} , then T_{10} will "wait"**Check Answer****Your score : 0**

Discussions (0)



Go to website

**Question 9 :**

View Solutions (0)

640653816078Total Mark : 3.00 | Type :



Check Answer



Discussions (0)



Question 21 :

View Solutions (0)

640653700757

Total Mark : 1.00 | Type :
MCQ

Consider the following statements:

- S1: In case of bit-interleaved parity, a single parity bit is enough for error correction.
S2: In case of block level striping with N disks, block i of a file goes to disk $(i \bmod N)$.
S3: Block-interleaved parity involves keeping an entire parity block on a separate disk.

Choose the correct option.



OPTIONS :

- S1 and S3 are true, S2 is false
 S1 is true, S2 and S3 are false
 S2 is true, S1 and S3 are false
 S1 and S2 are true, S3 is false



Check Answer

Your score : 1.000



Discussions (0)



Question 22 :

View Solutions (0)





Question 10 :

640653700749

View Parent QN

View Solutions (0)

Total Mark : 3.00 | Type :
MCQ

Consider a scenario where India won the World Cup final match played on 19 Nov 2023 and Virat scored 154 and faced 100 balls before getting 'Caught' out. Which of the following SQL queries is used to update the runs scored, ball faced (BF), and dismissal to 'Caught' against Australia on 19 Nov 2023?

OPTIONS :



```
Update cricket_stats  
set runs = 154, dismissal = 'Caught', BF = 100  
where date = '19 Nov 2023'
```



```
Update cricket_stats  
set runs = 154 and dismissal = 'Caught' and BF = 100  
where date = '19 Nov 2023'
```



```
Update cricket_stats  
set runs = 154, dismissal = 'Caught', BF = 100  
where opponent = 'Australia'
```



```
Update cricket_stats  
set runs = 154  
set dismissal = 'Not out'  
set BF = 100  
where opponent = 'Australia'
```



Check Answer

Your score : 3.000

Discussions (0)



Question 11 :

View Solutions (0)





640653700748

 View Solutions (0)Total Mark : 3.00 | Type :
MCQ

Choose the correct SQL queries to find the average runs scored and the number of matches played against each opposition, such that the following conditions must be satisfied:

- The average runs scored against the opposition is more than 50 runs.
- And hit more number of 4s against opposition than the total number of 6s hit by Virat against 'New Zealand' in the World Cup 2023.

OPTIONS :



```
SELECT opposition, AVG(runs) AS average_runs, COUNT(*) AS matches_played
FROM cricket_stats
WHERE 4s > (select sum(6s) from cricket_stats
where opposition = 'New Zealand') and
(select avg(runs) from cricket_stats) > 50
GROUP BY opposition
```



```
SELECT opposition, AVG(runs) AS average_runs, COUNT(*) AS matches_played
FROM cricket_stats
WHERE AVG(runs) > 50 and
4s > (select sum(6s) from cricket_stats where opposition = 'New Zealand')
GROUP BY opposition
```



```
SELECT opposition, AVG(runs) AS average_runs, COUNT(*) AS matches_played
FROM cricket_stats
WHERE 4s > (select sum(6s) from cricket_stats ) and
AVG(runs) > 50 and opposition = 'New Zealand'
```



```
SELECT opposition, AVG(runs) AS average_runs, COUNT(*) AS matches_played
FROM cricket_stats
WHERE 4s > (select sum(6s) from cricket_stats group by opposition)
and opposition = 'New Zealand'
GROUP BY opposition
HAVING AVG(runs) > 50
```



Check Answer

Your score : 3.000



Discussions (0)



MCQ

Consider the relation:

Items(item_name, item_type, brand, price)

There is at least one item each in the 'Food' and 'Beverage' item type categories. What will the following relational algebra expression imply?

$$\begin{aligned} & \Pi_{item_name}(\sigma_{(item_type='Beverage' \wedge brand='Keventer')}(Items)) - \\ & \Pi_{item_name}(Items \times_{(item_type='Beverage' \wedge brand='Keventer' \wedge q='Food' \wedge price \geq s \wedge r='Amul')} \rho_{(p,q,r,s)}(Items)) \end{aligned}$$

OPTIONS :

- Names of all beverage items from the brand Keventer that have lower prices than all food items from the brand Amul
- Names of all food items from the brand Keventer that have lower prices than all beverage items from the brand Amul
- Names of all food items from the brand Keventer that have higher prices than all food and beverage items from the brand Amul
- Names of all beverage items from the brand Amul that have a lower price than all food and beverage items from the brand Keventer



Check Answer

Your score : 3.000

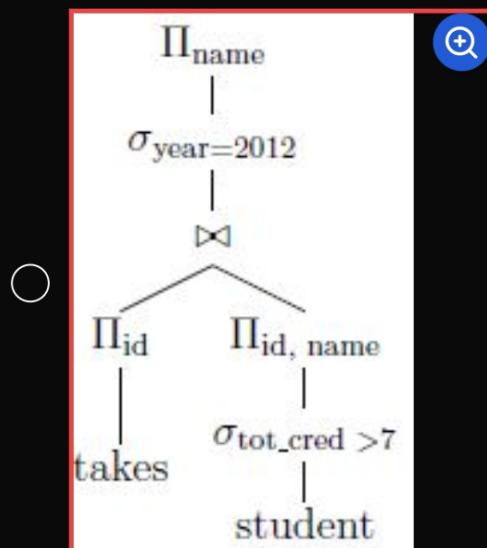
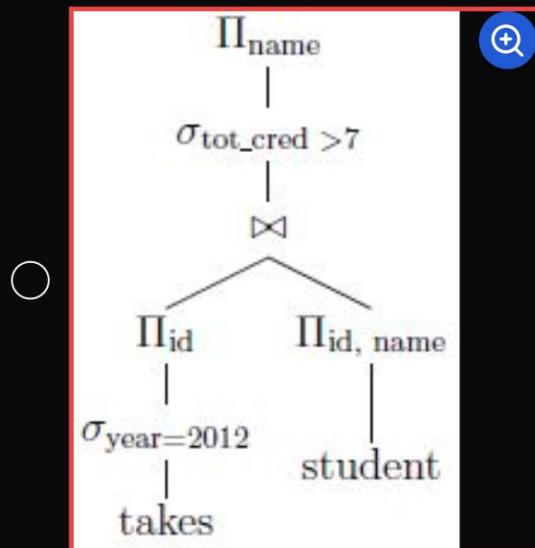
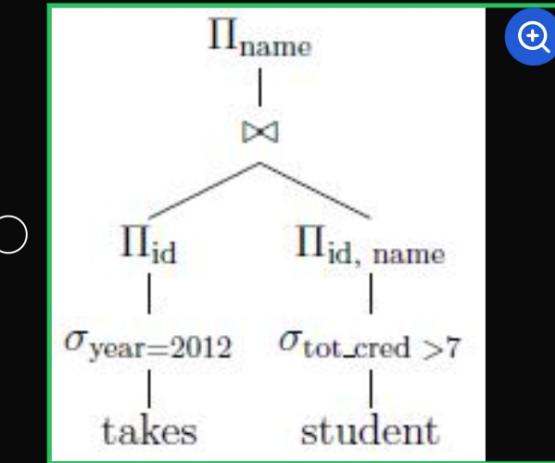


Consider the given relations:
student(id, name, dept_name, tot_cred)
takes(id, course_id, year, grade)

Identify the most optimized expression tree from the given options that find the name of students whose tot_cred is greater than 7 and the year is 2012.



OPTIONS :



Question 6 :

View Solutions (0)

640653696189Total Mark : 2.00 | Type :
MCQ

Consider the following relation Students and the following query:
Students(Roll, Name, Age)

```
Select Name  
From Students as S  
Where (Select count(*)  
      From Students as T  
      Where T.Age>S.Age)>=6
```

If the Students table contains data of 10 students such that no two students have the same age, then what will be the result of the above query?

OPTIONS :

- Names of the 4 youngest students
- Names of the 4 oldest students
- Names of the 5 youngest students
- Name of the fourth oldest student

**Check Answer****Your score : 2.000**

Discussions (0)

**Question 7 :**

View Solutions (0)

640653696192Total Mark : 2.00 | Type :
MCQ

Consider the table Employee as given below:



Your score : 2.000

Discussions (0)



Question 5 :

640653608964Total Mark : 2.00 | Type :
MCQ

View Solutions (0)

Consider the relational schema $R(A, B, C, D, E, F, G, H)$ and the functional dependency set $F_{FD} = \{ H \rightarrow GD, E \rightarrow D, HD \rightarrow CE, BD \rightarrow A \}$. Identify the minimal cover of the given F_{FD} .



OPTIONS :

 $\{H \rightarrow GCE, BD \rightarrow A\}$ **$\{H \rightarrow GCE, E \rightarrow D, D \rightarrow A\}$** **$\{H \rightarrow GCE, E \rightarrow D, BD \rightarrow A\}$** **$\{H \rightarrow GCE, E \rightarrow D, B \rightarrow A\}$**

Check Answer

Your score : 0

Discussions (0)



**Answer (Numeric):**

Answer

Check Answer

Discussions (0)

**Question 18 :**

View Solutions (0)

640653608976

Total Mark : 2.00 | Type : SA

Consider a relation schema student(*roll_no, name, mobile_no*)Consider a B^+ -tree index build on the *roll_no* attribute, assuming student relation has 30000 records, and the order of the B^+ -tree is 30. Find out the maximum number of nodes to be accessed to search a key from the given B^+ -tree.**Answer (Numeric):**

Answer

Accepted Answer : 4

Check Answer

Your score : 0

Discussions (0)

**Question 19 :**

View Solutions (0)





Check Answer

Discussions (0)

**Question 16 :**

View Solutions (0)

640653608975

Total Mark : 3.00 | Type : SA

Consider a B-tree with a block size of 2048 bytes, key size of 24 bytes, record pointer size of 32 bytes, and block pointer size of 16 bytes. Find out the maximum order possible for the B-tree from the given information.

**Answer (Numeric):**

Answer

Accepted Answer : 29

Check Answer

Your score : 0

Discussions (0)

**Question 17 :**

View Solutions (0)

640653608974



Check Answer

Your score : 0

Discussions (0)

**Question 17 :**

View Solutions (0)

640653608974

Total Mark : 2.00 | Type : SA

Consider a relation Order(*order_no, product_id, quantity, date*). The attribute *product_id* consists of 6 distinct values. A bitmap index is created on the attribute *product_id*, the size of the bitmap index file is 1800 bytes. Find the number of tuples in the Order relation.

**Answer (Numeric):**

Answer

Accepted Answer : 2400

Check Answer

Your score : 0

Discussions (0)

**Question 18 :****640653608976**

View Solutions (0)



**Question 12 :**
640653608970Total Mark : 0.00 | Type :
COMPREHENSION

Consider the following RAID architecture to answer the given subquestions.

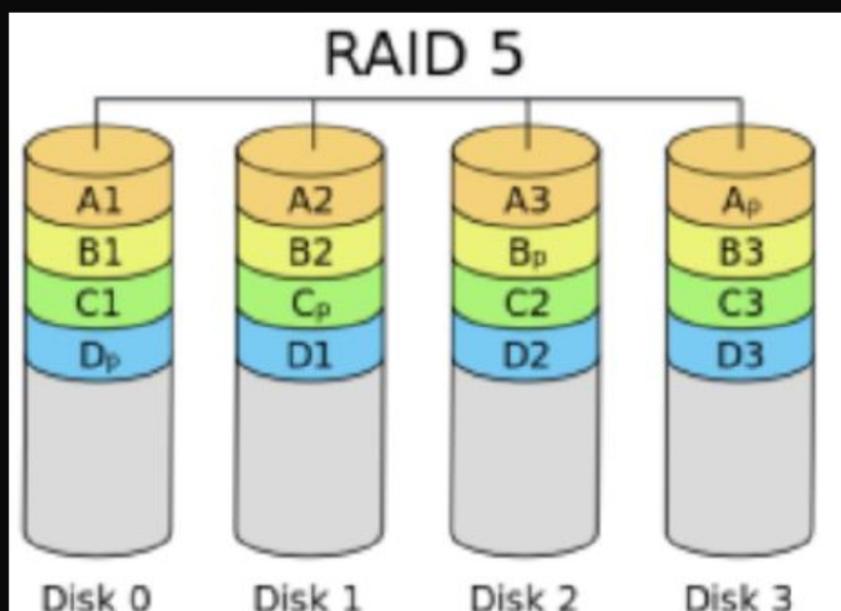


Figure 1: RAID 5 System

Discussions (0)

**Question 13 :**
640653608971

View Parent QN

View Solutions (0)





A RAID-5 storage system with a similar arrangement of parity blocks as described in Figure 1 is used for storing the following data : According to Figure 2, disk-4 has crashed and disk-3 has been corrupted partially. What data is present in block-4 of disk-3? Note: Assume block size is 4 bits

Disk 1	Disk 2	Disk 3	Disk 4	
0100	0101	0101	XXXX	Block 1 row
1000	0101	1101	XXXX	Block 2 row
0100	0101	0101	XXXX	Block 3 row
0010	0011	XXXX	XXXX	Block 4 row

Figure 2: RAID 5 DATA

OPTIONS :

- 1101
- 1110
- 0101
- Cannot be recovered



Question 14 :**640653608972**

View Parent QN

View Solutions (0)

Total Mark : 3.00 | Type :
MCQ

Consider the data given in previous question. Suppose, block-4 of disk-3 contains '0101'. Assume that the binary values represent 8-bit ASCII code. What is the data word present inside this RAID-5 storage system?

The ASCII code for A to Z is given below:

Character	A	B	C	D	E	F	G	H	I
ASCII Code	65	66	67	68	69	70	71	72	73

Character	J	K	L	M	N	O	P	Q	R
ASCII Code	74	75	76	77	78	79	80	81	82

Character	S	T	U	V	W	X	Y	Z
ASCII Code	83	84	85	86	87	88	89	90

OPTIONS :

- EXCUSE
- EXPECT
- EXPORT
- Cannot store any data



Check Answer



**Question 11 :****View Solutions (0)****40653608969**Total Mark : 3.00 | Type :
MCQConsider the given schedules S_1 and S_2 given below and the following assumptions : $R_i(a)$ means that transaction T_i is performing a read operation on data item (a) . $W_i(a)$ means that transaction T_i is performing a write operation on data item (a) . Com_i means that transaction T_i has committed. $S_1 : R_1(A), R_3(C), W_2(B), R_2(A), W_1(B), W_3(C),$ $S_2 : R_1(A), R_2(B), W_1(C), R_3(B), R_3(C), W_2(B), W_3(A),$

Which of the above schedules can be two-phase lockable?

OPTIONS : Only S_1 Only S_2 Both S_1 and S_2 Neither S_1 nor S_2 **Check Answer**

Question 2 :

View Solutions (0)

640653566302Total Mark : 2.00 | Type :
MSQ

Consider the relation student(*roll_no, name, department, age*). Which of the following queries will give a syntax error?

OPTIONS : select department, count(*) from student
where age > 21 group by department select department, count(*) from student
where age > 21 order by department group by department select department, count(*) from student
where age > 21 group by department order by department select department, count(*) from student
group by department having age > 21**Check Answer****Your score : 2**

Discussions (0)

**Question 3 :**

View Solutions (0)



Question 3 :

View Solutions (0)

640653566308Total Mark : 2.00 | Type :
MSQConsider a Block nested loop join for the two relations **instructor** and **department**:

Relation	instructor	department
Number of tuples(n)	1000	200
Number of blocks(b)	500	60

Assuming the worst-case memory availability and considering **instructor** as the outer relation, which of the following options is/are correct?**OPTIONS :** Number of block transfers = 30500 Number of block transfers = 30070 Number of seeks = 120 Number of seeks = 1000

Check Answer

Your score : 0

Discussions (0)

**Question 4 :**

View Solutions ^





{40, 20}



Check Answer



Discussions (0)



Question 20 :

640653566311

Total Mark : 2.00 | Type : SA



View Solutions (0)

Consider a magnetic disk with 16 platters, 2 surfaces/platter, 1024 tracks/surface, 2048 sectors/track, and 1024 bytes/sector. The disk rotates with 6000 revolutions per minute. What is the minimum number of bits required for addressing all the sectors?

Answer (Numeric):

Answer

Accepted Answer : 26



Check Answer





Check Answer

Discussions (0)

**Question 16 :****640653566319**

View Solutions (0)

Total Mark : 2.00 | Type :
MCQ

Consider a B-tree based index with an order $p = 25$. Assume that each node in the B-tree is 80% full. What is the minimum number of keys that the B-tree can have?

OPTIONS :

 19,880 19,800 18,000 19,999

Check Answer

Your score : 0

Discussions (0)





Discussions (0)



Question 9 :

View Solutions (0)

640653566327

Total Mark : 3.00 | Type :
MSQ

Consider a relation A(P, Q, R, S, T) with the following set of functional dependencies.

 $\mathcal{F} = \{PQ \rightarrow S, P \rightarrow R, PQR \rightarrow T, ST \rightarrow Q\}$

If we decomposed A into A1 and A2, such that A1(P, R) and A2 (P, Q, S, T). Which of the following statements is/are correct?



OPTIONS :

 A is in BCNF. A is not in 3NF. PST is the only candidate key in A. The decomposition of A is lossless. A1 and A2 are not dependency preserving. 

Check Answer

Your score : 1.5

Discussions (0)





MSQ

The snapshot of a database at a point of time is provided below. Which of the following statements are correct with respect to the procedure followed after a system crash?

Sl.no.	T1	T2	T3
1.	start		
2.	Read (B)		
3.	Write (B)		
4.			
5.			
6.	Commit		
7.		Start	
8.		Read (A)	
9.		Commit	
10.	System Crash	System Crash	System Crash



Figure 3: Log records at a point of time

OPTIONS :

- Transaction T1 and T2 must roll back.
- Transaction T3 must be undone.
- Redo transaction T1 and T2
- Redo transaction T1, T2, and T3



Check Answer

Your score : 0

