



Online Exams

Sri Lanka Institute of Information Technology

Question 8

Not yet answered

Marked out of
0

Flag question

Select correct statement/s about handling deadlocks in database systems.

Select one or more:

- a. In deadlock prevention, priorities are assigned to transactions based on timestamps
- b. Wait-Die and Wait-wound are the two deadlock prevention mechanisms.
- c. When deadlock occurs, victim is the transaction which is going to wait.
- d. In wait -die, if the transaction that requires the property holds by other transaction have high priority, it will wait and die.
- e. To detect deadlock, Periodically check for cycles in the waits-for graph

a b e



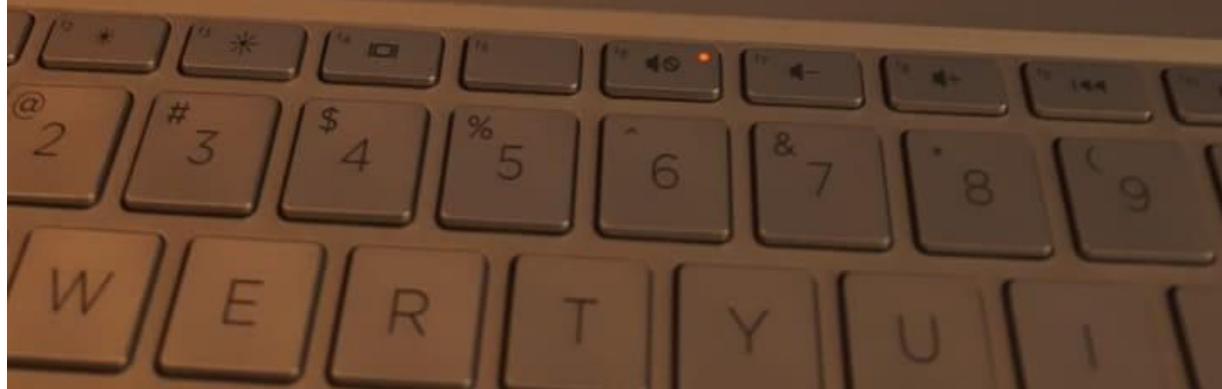
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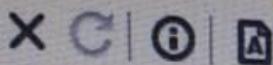
Assume you have 5 buffer pages to sort 72 page files. Calculate the cost with external merge sort.

Select one:

- a. 576
- b. 75
- c. 216
- d. 87
- e. 432



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9

answered
out of

question

What is the correct OR-SQL query that retrieve the values from VARRAY?

```
CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
```

/

```
CREATE TABLE pricelist (
    pno integer,
    prices price_arr
)
/
```

Select one or more:

- a. SELECT pno, p.REF.price_arr.price
FROM pricelist p
- b. SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s; ✓
- c. SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
- d. SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
- e. SELECT pno, p.COLUMN_VALUE price
FROM pricelist p



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CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
```

```
/
```

```
CREATE TABLE pricelist (
    pno integer,
    prices price_arr
)
/

```

Select one or more:

- a.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p
```
- b.

```
SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```
- c.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
```
- d.

```
SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```
- e.

```
SELECT pno, p.COLUMN_VALUE price
FROM pricelist p
```

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on

Consider the following statements,

- A - Let clause is **not** the convenient way to bind a variable
- B - Where clause can be used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. A and B only
- b. B and C only
- c. A only
- d. A and C only
- e. B only



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Consider the scenario given below.

T₁ T₂

W(A)

R(A)

W(B)

abort

If T₁ is aborted, select incorrect statement/s given below.

Select one or more:

- a. T₂ will wait until T₁ re-committed +
- b. Cascading aborts will happen ✓
- c. All actions of T₁ will be undone. ✓
- d. It is an unrecoverable Schedule ✗
- e. T₂ will be committed +

a, d, e

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Select correct statement/s about handling deadlocks in database systems.

Select one or more:

- a. To detect deadlock, Periodically check for cycles in the waits-for graph ✓
- b. In wait -die, if the transaction that requires the property holds by other transaction have high priority, it will wait and die ✗
- c. When deadlock occurs, victim is the transaction which is going to wait. ✗
- d. Wait-Die and Wait-wound are the two deadlock prevention mechanisms. ✓
- e. In deadlock prevention, priorities are assigned to transactions based on timestamps ✓

Next page



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QUESTION PAPERS

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Question 33

Not yet answered

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Ask question

What is the advantage of declaring a method as not instantiable in a supertype? When is this useful?

~~Redacted answer~~

✓

I

Select correct statement/s about handling deadlocks in database systems.

Select one or more:

- a. In deadlock prevention, priorities are assigned to transactions based on timestamps
- b. In wait -die, if the transaction that requires the property holds by other transaction have high priority, it will wait and die.
- c. To detect deadlock, Periodically check for cycles in the waits-for graph
- d. When deadlock occurs, victim is the transaction which is going to wait.
- e. Wait-Die and Wait-wound are the two deadlock prevention mechanisms.



Which one is incorrect on Indexing?

Select one or more:

- a. Dense index facilitates to fast searching. ✓
- b. Primary index has a key field ✓
- c. Used to optimize the performance of access the data. ✓
- d. Secondary index has a key field ✗
- e. Clustering indexes made up with only primary keys. ✗

A Q



Database D contains a relation R . Relation R contains a page P . Page P contains a tuple t . By assuming that multiple granularity locking scheme is used.

Select the correct order of locks acquired when reading all tuples of page P .

Select one or more:

- a. IS lock on database, IS lock on relation R , X lock on page P
- b. IX lock on database, IX lock on relation R , X lock on page P
- c. IS lock on database, IX lock on relation R , X lock on page P
- d. IS lock on database, IS lock on relation R , IS lock on page P
- e. IS lock on database, IS lock on relation R , S lock on page P

**Question 9**

Not yet answered

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2.00

Flag question

Which combination is true?

Select one or more:

- a. Hashed file - good for equality selection ✓
- b. B+ Tree file - Dynamic Tree Index ↗
- c. Cluster file - cost effective when search records on range selections. ✓
- d. Heap file - records inserted to the begin of file ↗
- e. Sequential File - sorted records ✓

[Next page](#)

a b c e



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4

answered

out of

question

Assume you have 5 buffer pages to sort 72 page files. Calculate the cost with external merge sort.

Select one:

- a. 432
- b. 576
- c. 75
- d. 216
- e. 87

What is the correct insert statement according to the following table creation?

```
create type emp_t AS OBJECT(
    EMPNO CHAR(6),
    FIRSTNAME VARCHAR(12),
    LASTNAME VARCHAR(15),
    WORKDEPT REF dept_t,
    SEX CHAR(1),
    BIRTHDATE DATE,
    SALARY NUMBER(8,2)
)
```

```
create table OREMP of emp_t (
)
/
```

Select one or more:

- a.
insert into OREMP values REF ORDEPT ('000010', 'Christine', 'Hass', 'Planning', 'F', '14-AUG-1953', 72750);
- b.
insert into OREMP values(EMP_T('000010', 'Christine', 'Hass',
 (select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- c.
insert into OREMP values (EMP_T ('000010', 'Christine', 'Hass',
 (select refid) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750);
- d.
insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass',
 (select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750);
- e.
insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass');

F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
0%	z'	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sci
#	\$	%	^	&	*	()			uk

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Which includes for a "Query Block"?

Select one or more:

- a. SELECT - FROM - WHERE - GROUP BY - ORDER BY - HAVING
- b. SELECT - FROM - WHERE - GROUP BY - ORDER BY
- c. SELECT - FROM - WHERE
- d. SELECT - FROM - WHERE - GROUP BY ✓
- e. SELECT - FROM - WHERE - ORDER BY

C / d



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Question 8

Not yet answered

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2.00

Flag question

Database D contains a relation R. Relation R contains a page P. Page P contains a tuple t. By assuming that multiple granularity locking scheme is used.
Select the correct order of locks acquired when reading all tuples of page P.

Select one or more:

- a. IS lock on database, IX lock on relation R, X lock on page P
- b. IS lock on database, IS lock on relation R, X lock on page P
- c. IS lock on database, IS lock on relation R, IS lock on page P
- d. IS lock on database, IS lock on relation R, S lock on page P
- e. IX lock on database, IX lock on relation R, X lock on page P

Next page

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Which combination is true?

Select one or more:

- a. Cluster file – cost effective when search records on range selections. ✓
- b. Hashed file – good for equality selection ✓
- c. Sequential File – sorted records
- d. B+ Tree file – Dynamic Tree index ✓
- e. Heap file – records inserted to the begin of file ✗





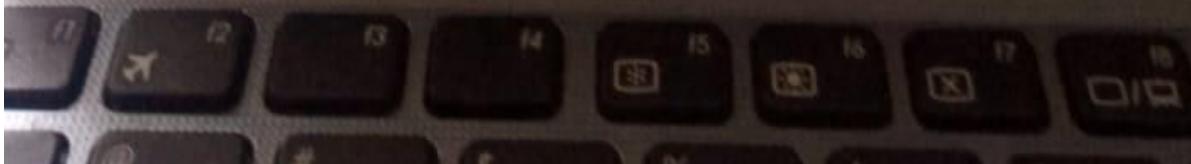
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Assume you have 5 buffer pages to sort 72 page files. Calculate the cost with exte

Select one:

- a. 576
- b. 216
- c. 75
- d. 87
- e. 432



**Question 11**

Not yet answered

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2.00

Flag question

Database D contains a relation R . Relation R contains a page P . Page P contains a tuple t . By assuming that multiple granularity locking scheme is used.

Select the correct order of locks acquired when reading all tuples of page P .

Select one or more:

- a. IX lock on database, IX lock on relation R , X lock on page P
- b. IS lock on database, IS lock on relation R , X lock on page P
- c. IS lock on database, IX lock on relation R , X lock on page P
- d. IS lock on database, IS lock on relation R , S lock on page P
- e. IS lock on database, IS lock on relation R , IS lock on page P

[Next page](#)

Consider the following statements,

- A - Let clause is not the convenient way to bind a variable X
- B - Where clause can be used to filter results ✓
- C - For and Let can be repeated and combined ✓

What is/are correct from above statements

Select one or more:

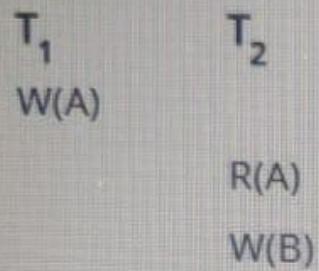
- a. B and C only
- b. B only
- c. A and C only
- d. A and B only
- e. A only

Question 14

Not yet answered

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2.00 Flag question

Consider the scenario given below.



If T_1 is aborted, select **incorrect** statement/s given below.

Select one or more:

- a. T_2 will be committed ✗
- b. T_2 will wait until T_1 recommitted ✗
- c. It is an unrecoverable Schedule ✗
- d. All actions of T_1 will be undone ✗
- e. Cascading aborts will happen ✓

_____ is a special case of _____ for which an index supports for efficient implementation of predicate lock.

Select appropriate word sequence for spaces.

Select one or more:

- a. Index locking, predicate locking
- b. Dynamic indexing, index locking
- c. Predicate locking, index locking
- d. Predicate locking, database locking
- e. Index locking, database locking



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What is the correct OR-SQL query that retrieve the values from VARRAY?

```
CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
/
CREATE TABLE pricelist (
    pno integer,
    prices price_arr
)
/
/
```

Select one or more:

- a. SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
- b. SELECT pno, p.REF.price_arr.price
FROM pricelist p
- c. SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
- d. SELECT pno, p. COLUMN_VALUE.price
FROM pricelist p
- e. SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;





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What is/are wrong about "REF" in Oracle ORDB?

Select one or more:

- a. All of them
- b. Accessing the object referred to by a REF is called dereferencing the REF
- c. Oracle does not allow Unique or PRIMARY KEY constraints on REF columns
- d. A REF column can be assigned a null value
- e. REF is not a built-in data type in Oracle

e

Choose the options that are not the properties of a transaction.

Select one or more:

- a. Isolation
- b. Consistency
- c. Durability
- d. Availability
- e.
Partition tolerance

A
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Select motivation for concurrent transactions.

Select one or more:

- a. By interleaving actions of different transactions, DBMS can improve performance
- b. CPU can process one transaction while another is waiting for a page to be read from disk
- c. Interleaving short transactions with longer transactions allows to complete quicker
- d. greater system utilization
- e. Predictable delay from request to completion



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Question 4

Not answered
out of
question

Consider the following statements about transactions.

A. DBMS logs all actions so that it can undo the actions of aborted transactions.

B. DBMS are mainly responsible for ensuring transaction consistency.

C. A committed transaction is always reflected in the database.

Select the correct statements

Select one:

- a. A only
- b. C only
- c. A and C only
- d. B only
- e. A and B only



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What is/are the types of built in function in Xml?

- A - Number Related
- B - Sequence Related
- C - Error handling and trapping
- D - String related

Select one or more:

- a. A, C, D only
- b. A and C only
- c. B, C and D only
- d. C only
- e. All of them

✓

e

Consider the following statements about transactions.

- A - DBMS logs all actions so that it can undo the actions of aborted transactions. ✓
- B - DBMS are mainly responsible for ensuring transaction consistency. ✗
- C - A committed transaction is always reflected in the database. ✓

Select the correct statements

Select one:

- a. A and C only
- b. A only
- c. A and B only
- d. C only
- e. B only



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Question 13

Not yet answered

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2.00

Flag question

Which one is **incorrect** on Indexing?

Select one or more:

- a. Dense index facilitates to fast searching. ✓
- b. Primary index has a key field ✓
- c. Secondary index has a key field ✗
- d. Used to optimize the performance of access the data. ✓
- e. Clustering indexes made up with only primary keys. ✗

c/e

Next pa

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How differ Static Hashing from Extendible Hashing?

Select one or more:

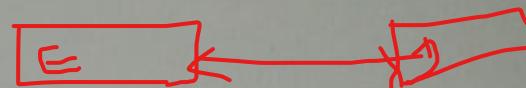
- a. Does not create long overflow chains X
- b. Allow fixed number of primary buckets to store the records ✓
- c. Less complex for implementation. ✓
- d. Primary nodes will delete if empty X
- e. Performance is not affected when file is growing X

10/15

What is co-dependent types in Object Relational Model.

Select one:

- a. None of the them
- b. Conflicts between two types of data objects
- c. Cycle of references between two types.
- d. Conflicts between two tables
- e. Cycle of references between two table.



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Which combination is true?

Select one or more:

- a. B+ Tree file – Dynamic Tree index ✓
- b. Sequential File – sorted records ✓
- c. Heap file – records inserted to the begin of file ✗
- d. Cluster file – cost effective when search records on range selections. ✓
- e. Hashed file – good for equality selection ✓



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Select the mechanism(s) that can be avoided the phantom problem in dynamic databases?

Select one or more:

- a. Index locking
- b. Simple Tree Locking Algorithm
- c. Strict 2PL locking
- d. Multiple granularity locking
- e. Write ahead Locking

a
b
d



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Question 8

Not yet answered
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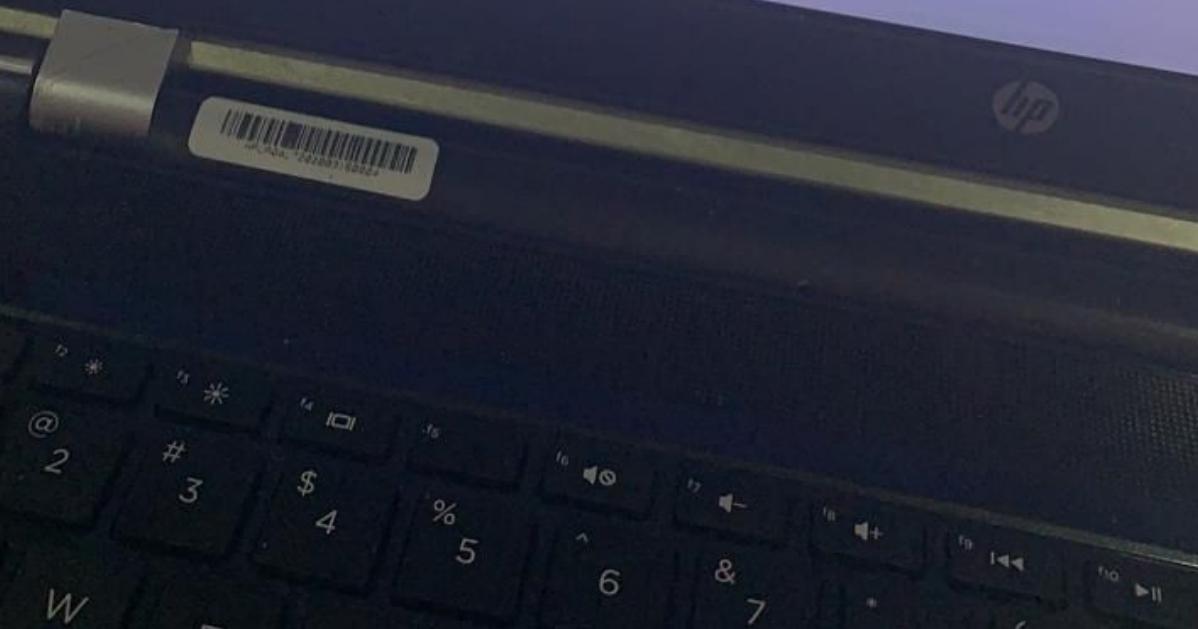
Flag question

What is/are not table joining algorithms in query processing

Select one or more:

- a. Page oriented Nested loop join ✓
- b. Index nested loop join ✓
- c. Block nested loop join ✓
- d. Simple Nested loop join ✓
- e. External merge sort algorithm

e



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Database D contains a relation R. Relation R contains a page P. Page P contains a tuple t. By assuming scheme is used.

Select the correct order of locks acquired when reading all tuples of page P.

Select one or more:

- a. IS lock on database, IS lock on relation R, S lock on page P
- b. IS lock on database, IS lock on relation R, IS lock on page P
- c. IS lock on database, IS lock on relation R, X lock on page P
- d. IX lock on database, IX lock on relation R, X lock on page P
- e. IS lock on database, IX lock on relation R, X lock on page P





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Question 11

Not yet answered

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Flag question

Select the mechanism(s) that can be avoided the phantom problem in dynamic databases?

Select one or more:

- a. Multiple granularity locking
- b. Simple Tree Locking Algorithm
- c. Strict 2PL locking
- d. Write ahead Locking
- e. Index locking

Next page

Select root causes for un-serializable schedules.

Select one or more:

- a. Serial schedules
- b. Unrepeatable reads
- c. Overwriting uncommitted data
- d. Dirty reads
- e. Equivalent schedules



Moodle

```
<year> 1975 </year>
<make> Piper </make>
<model> Apache </model>
<color> White </color>
</plane>
<plane>
<year> 1960 </year>
<make> Cessna </make>
<model> Centurian </model>
<color> Yellow and white </color>
</plane>
<plane>
<year> 1956 </year>
<make> Piper </make>
<model> Tripacer </model>
<color> Blue </color>
</plane>
</planes>
```

Note that the above XML document stored in *Planes* (*xText XML*) table created in MS SQL Server.

What would be the output of the following XQuery expression?

```
SELECT xText.query (' let $planes := /planes/plane
return <results>
{
    for $x in $planes
    where $x/year >= 1970
    order by ($x/year)[1]
    return ($x/make, $x/model, $x/year )
}
</results>
')
FROM planes
```

CV

Select **incorrect** statement/s from given below

Select one or more:

- a. a schedule represents an actual or potential execution sequence ✓
- b. Strict 2PL always allows only serializable schedules ✓
- c. Repeatable reads is an anomaly which occurs due to serial execution ✗
- d. RW conflict is a root cause for unrecoverable schedule ✗
- e. Strict 2PL avoids cascading aborts ✓

C / D ✓



Question 8

Not yet answered

Marked out of
2.00

Flag question

Database D contains a relation R . Relation R contains a page P . Page P contains a tuple t . By assuming that multiple granularity locking scheme is used.

Select the correct order of locks acquired when reading all tuples of page P .

Select one or more:

- a. IS lock on database, IS lock on relation R , IS lock on page P
- b. IS lock on database, IS lock on relation R , S lock on page P
- c. IS lock on database, IX lock on relation R , X lock on page P
- d. IX lock on database, IX lock on relation R , X lock on page P
- e. IS lock on database, IS lock on relation R , X lock on page P

Next page 



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Choose inappropriate rule(s) for Strict 2PL protocol.

Select one or more:

- a. None of the Them
- b. If a transaction holds an X lock on an object, no other transaction can get a lock on that object.
- c. When transaction completes, all locks held by transaction are released.
- d. Each transaction must obtain an X lock on object before writing
- e. Each transaction must obtain an X lock on object before reading

Next

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Q W E R T Y U I O S D F G H J K



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Question 3

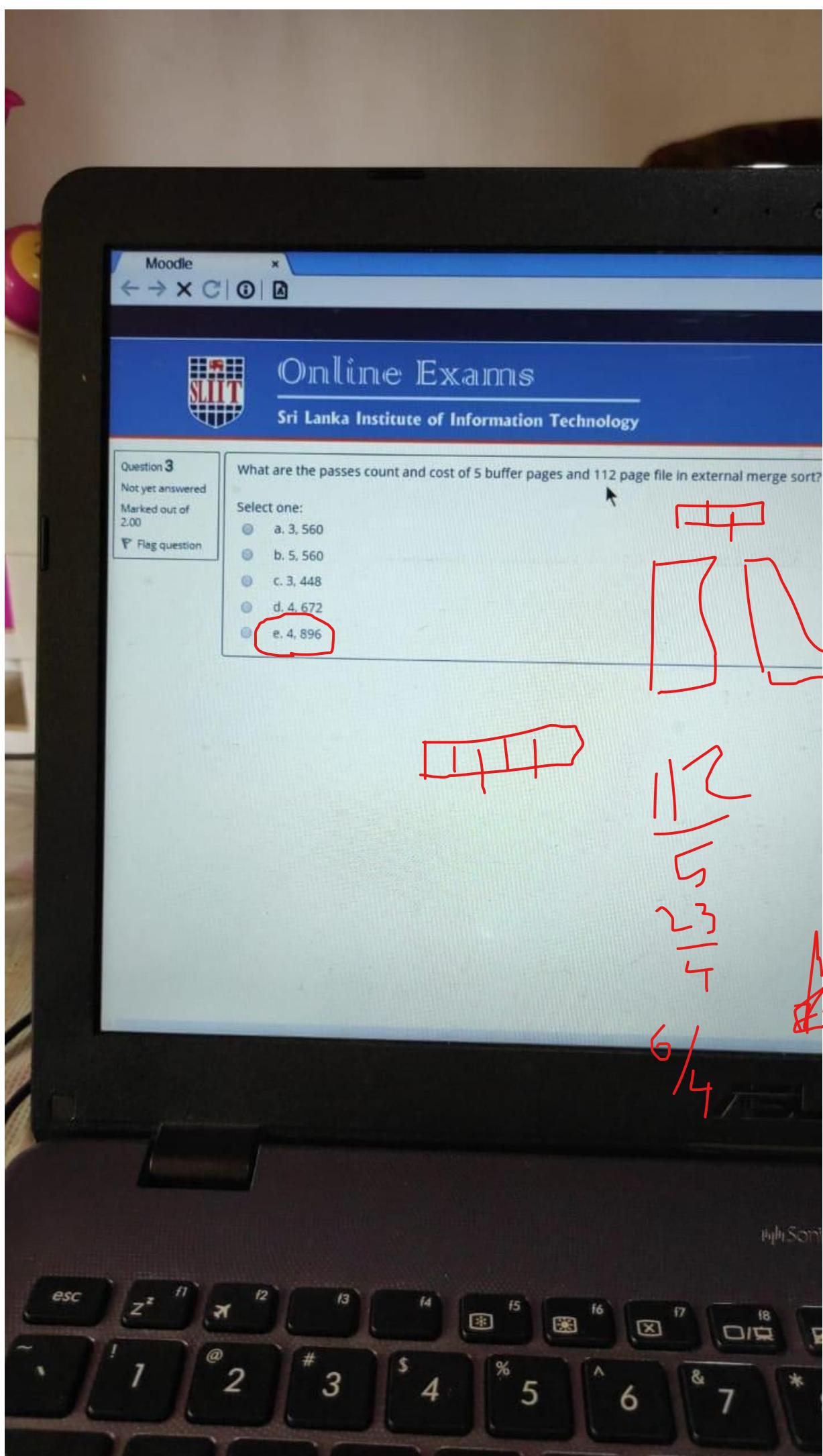
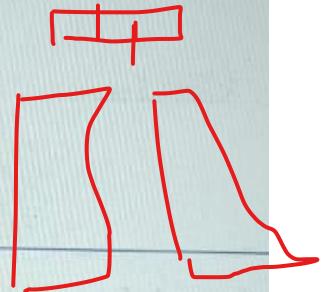
Not yet answered
Marked out of
2.00

Flag question

What are the passes count and cost of 5 buffer pages and 112 page file in external merge sort?

Select one:

- a. 3, 560
- b. 5, 560
- c. 3, 448
- d. 4, 672
- e. 4, 896





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Which of the following is true relate to Object Relational Database Systems?

Select one:

- a. All of them.
- b. They are used to create tables without constraints.
- c. They have the ability to store complex data types.
- d. They are most useful for traditional, two-dimensional database tables.
- e. They are overtaking RDBMS for all applications.

Next page

What is the correct OR-SQL query that retrieve the values from V

```
CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
/
```

```
CREATE TABLE pricelist (
    pno integer,
    prices price_arr
)
/
```

Select one or more:

- a.

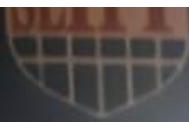
```
SELECT pno, p.COLUMN_VALUE.price
FROM pricelist p
```
- b.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p
```
- c.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
```
- d.

```
SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```
- e.

```
SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```



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Flag question

What is co-dependent types in Object Relational Model.

Select one:

- a. None of the them
- b. Cycle of references between two types.
- c. Conflicts between two types of data objects
- d. Cycle of references between two table.
- e. Conflicts between two tables



Which of the following can not be NULL?

Select one or more:

- a. A collection, or collection element *C un*
- b. None of above
- c. A column value in a table *C un*
- d. Object attribute value *C un*
- e. Object *C un*



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10

answered

out of

question

Consider the following script.

```
CREATE TYPE Child_t AS OBJECT (
    name char(20),
    addr varchar(50)
)
/
CREATE TYPE ChildTableType AS TABLE OF Child_t
/
CREATE TABLE Employee (
    name char(30),
    Job char(50),
    Child_details ChildTableType
)
....
```

Last line of the Employee table is,

Select one or more:

- a. NESTED TABLE Child_details STORE AS e. Child_table UNDER Employee e;
- b. NESTED TABLE Child_details STORE AS Child_table;
- c. NESTED TABLE Child_details STORE AS e.Child_table UNDER Employee e;
- d. NESTED TABLE Child_details STORE REF AS Child_table;
- e. NESTED TABLE Child_details STORE REF AS Child_table UNDER Employee;



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Question 2

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Flag question

Consider the following statements,

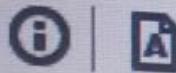
- A - Let clause is **not** the convenient way to bind a variable
- B - Where clause can be used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. B and C only
- b. A and C only
- c. A and B only
- d. A only
- e. B only

X



Select **incorrect** statement/s about simple tree locking algorithm

Select one or more:

- a. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.
- b. Once child is locked by X lock, check if it is safe before release the locks.
- c. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- d. In delete / insert processes, If child node is safe release all locks on ancestors.
- e. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent

Nex

Moodle

Online Exams

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on 23
answered
Four of
question

Select one:

- a. 5
- b. 2
- c. 4
- d. 3
- e. 6

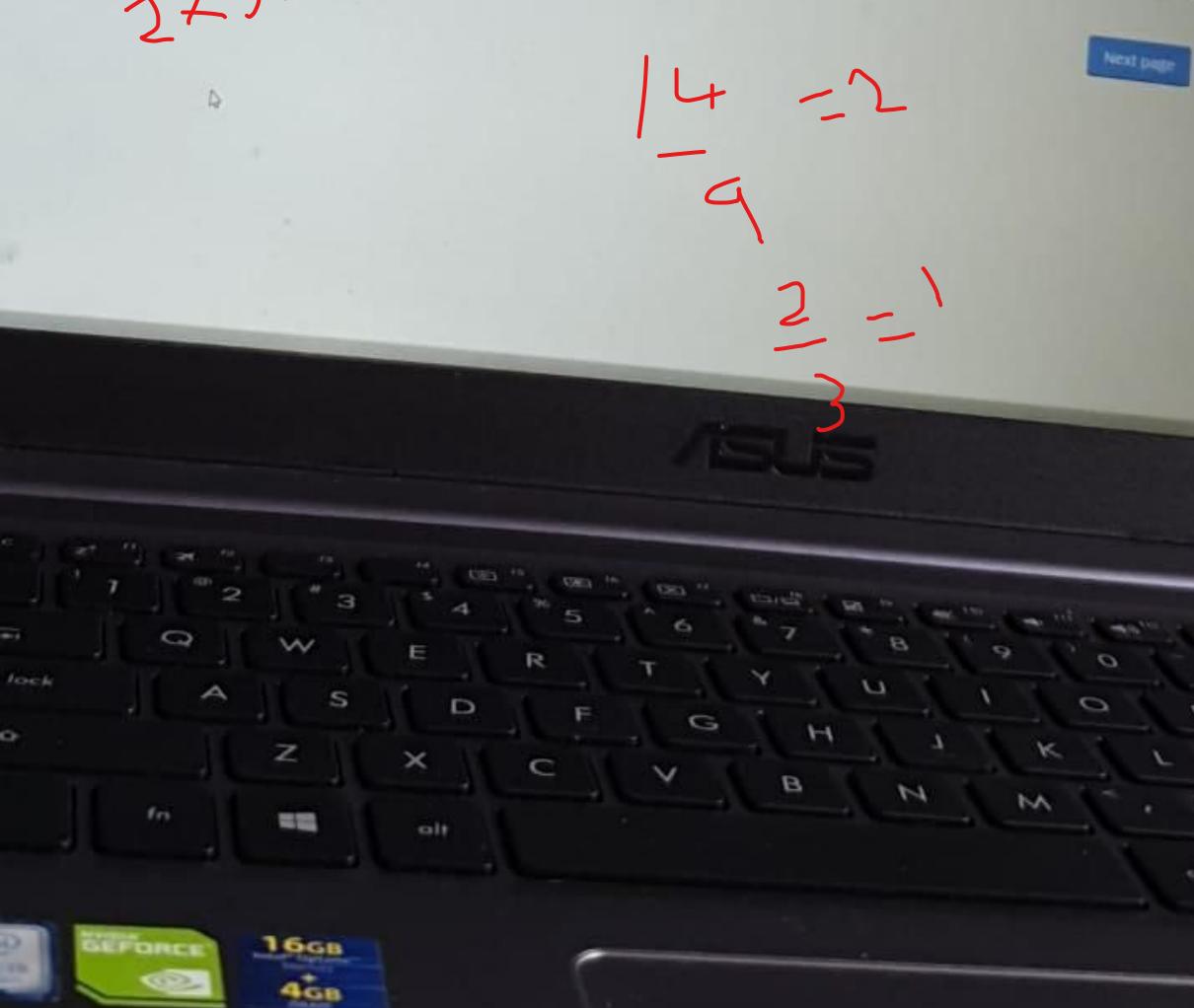
Assume you have 9 buffer pages to sort 120 pages in a file. How many passes we get in external merge sort?

$$\frac{120}{9} = 13$$

$$2 + 3 + 120$$

$$\frac{14}{9} = 2$$

$$\frac{2}{3} = 1$$





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Question 8

Not yet answered

Marked out of
2.00

Flag question

Select one:

- a. 4
- b. 6
- c. 5
- d. 3
- e. 2

Assume you have 9 buffer pages to sort 120 pages in a file. How many passes we get in external merge sort?

Next page



Question 9

Not yet answered

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2.00

Flag question

What is/are the types of built in function in Xml?

- A - Number Related
- B - Sequence Related
- C - Error handling and trapping
- D - String related

Select one or more:

- a. B, C and D only
- b. A, C, D only
- c. All of them
- d. C only
- e. A and C only

iddle x

X C | ⓘ | A

 Sri Lanka Institute of Information Technology

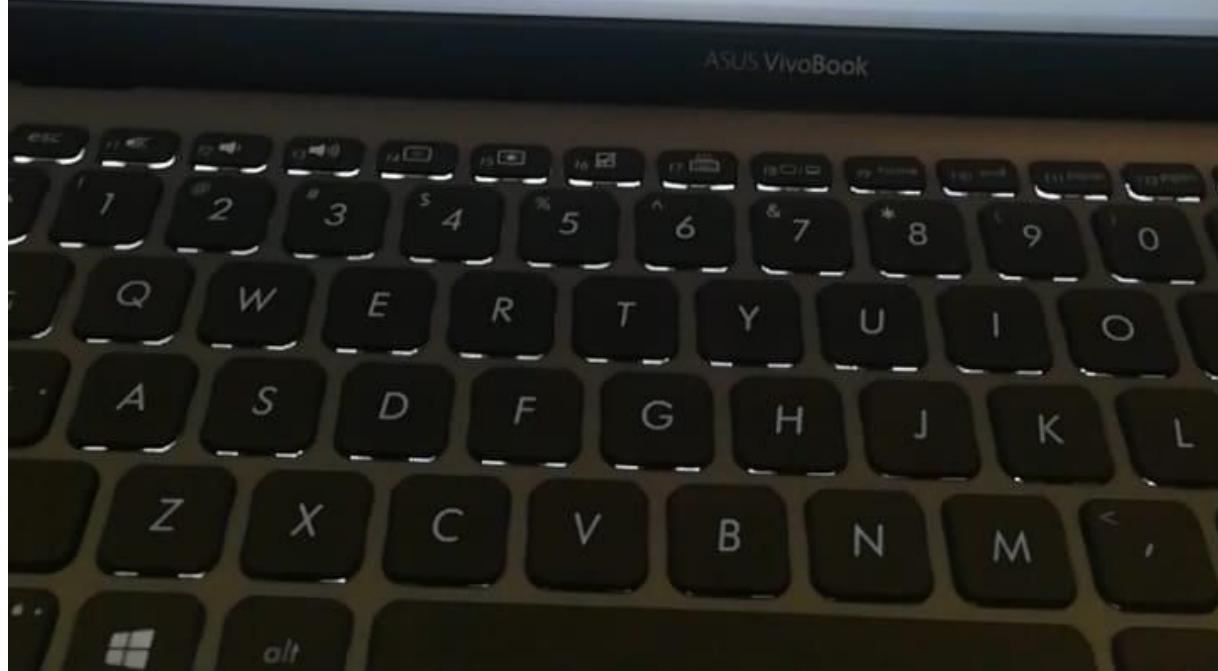
5
answered
out of
question

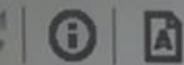
What is/are correct about the following statement?
CREATE TYPE StudentType AS OBJECT (
 name CHAR(20),
 addr CHAR(20))
/
A. This the way we create a type in Oracle
B. We can insert values to objects without creating tables
C. We should initialize the all attributes at the object creation
D. In Oracle, type definitions must be executed before the table creation
E. All of above

Select one:

a. Only A and B
 b. All are correct
 c. Only B and C
 d. Only A
 e. Only A and D

Print page





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Which combination is true?

Select one or more:

- a. B+ Tree file – Dynamic Tree index ✓
- b. Hashed file – good for equality selection ✓
- c. Sequential File – sorted records ✓
- d. Heap file – records inserted to the begin of file ✗
- e. Cluster file – cost effective when search records on range selections. ✓



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it1711

Dashboard

Examinations

Lockdown Browser

it17153478 Darmasiri

Question 14

Not yet answered

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Flag question

Select incorrect statement/s from given below

Select one or more:

- a. Strict 2PL always allows only serializable schedules
- b. Repeatable reads is an anomaly which occurs due to serial execution
- c. RW conflict is a root cause for unrecoverable schedule
- d. a schedule represents an actual or potential execution sequence
- e. Strict 2PL avoids cascading aborts

Next page



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Question 7

Not yet answered

Marked out of 2.00

Flag question

Consider the scenario given below.

T_1

$R(A)$

$W(B)$

If T_1 is aborted, select **incorrect** statement/s given below.

Select one or more:

- a. It is an unrecoverable Schedule
- b. All actions of T_1 will be undone.
- c. Cascading aborts will happen
- d. T_2 will be committed
- e. T_2 will wait until T_1 recommitted

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**Question 11**

Not yet answered

Marked out of
2.00

Flag question

Select root causes for un-serializable schedules.

Select one or more:

- a. Dirty reads
- b. Unrepeatable reads
- c. Equivalent schedules
- d. Serial schedules
- e. Overwriting uncommitted data

[Next page](#)



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lag question

What is/are **not** table joining algorithms in query processing

Select one or more:

- a. Page oriented Nested loop join
- b. Simple Nested loop join
- c. Block nested loop join
- d. Index nested loop join
- e. External merge sort algorithm

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Select incorrect statement/s about simple tree locking algorithm

Select one or more:

- a. Once child is locked by X lock, check if it is safe before release the locks.
- b. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- c. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent
- d. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.
- e. In delete / insert processes, If child node is safe release all locks on ancestors.

Next page

The image shows a close-up of a laptop keyboard, likely an HP model, with a dark blue or black finish. The keys are white with black lettering. A small barcode sticker is visible on the left side of the keyboard. The background is slightly blurred, showing the laptop's body and a portion of the screen displaying the online exam interface.

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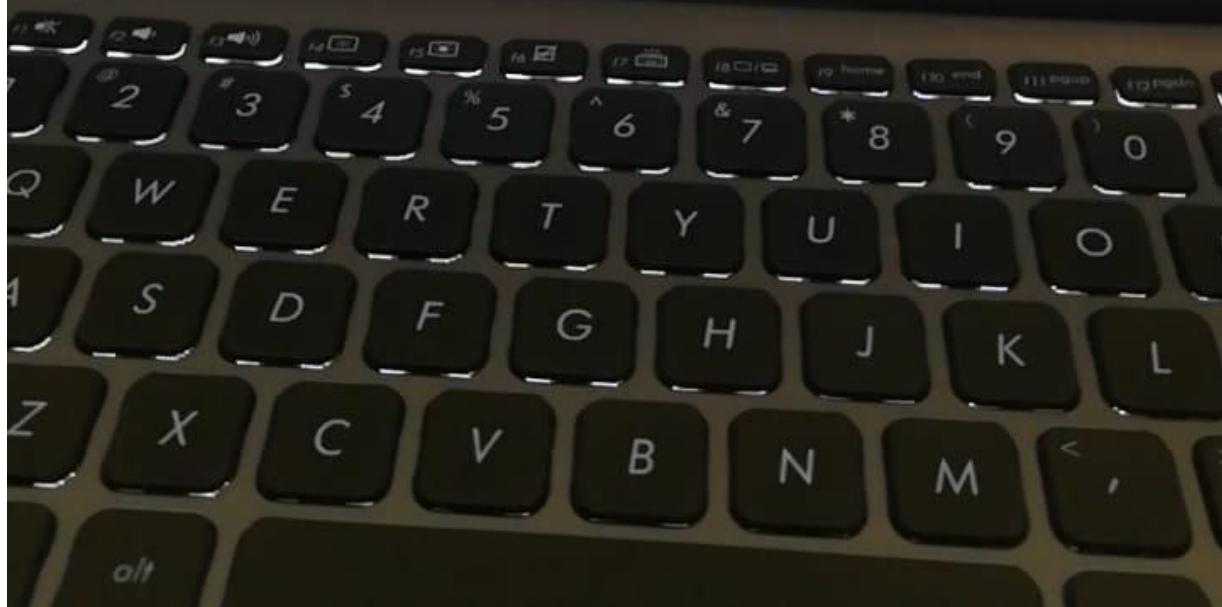
Select correct statement/s about handling deadlocks in database systems.

Select one or more:

- a. In deadlock prevention, priorities are assigned to transactions based on timestamps
- b. Wait-Die and Wait-wound are the two deadlock prevention mechanisms.
- c. To detect deadlock, Periodically check for cycles in the waits-for graph
- d. In wait -die, if the transaction that requires the property holds by other transaction have high priority, it will wait and die.
- e. When deadlock occurs, victim is the transaction which is going to wait.

[Next page](#)

ASUS VivoBook





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Which one is **incorrect** on Indexing?

Select one or more:

- a. Primary index has a key field
- b. Secondary index has a key field
- c. Used to optimize the performance of access the data.
- d. Clustering indexes made up with only primary keys.
- e. Dense index facilitates to fast searching.

Question 8

Not yet answered

Marked out of
2.00

 Flag question

What is **not** important to decide best query execution plan

Select one or more:

- a. Execution time
- b. The time rollback sessions have occurs:
- c. Number of steps follow to get the estimation
- d. Number of disk accesses
- e. Communication costs in distributed or parallel database systems





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Question 10

Not yet answered

Marked out of
2.00

Flag question

What is the Oracle command to create a VARRAY TYPE?

Select one or more:

- a. Create ROW TYPE excharray AS of varchar(12)
- b. Create ROW TYPE excharray AS varray(5) of varchar(12)
- c. Create ROW TYPE excharray AS varray(5)
- d. Create TYPE excharray AS varray(5) of varchar(12)
- e. Create TYPE excharray AS varray(5)

Select **incorrect** statement/s about simple tree locking algorithm

Select one or more:

- a. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- b. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.
- c. In delete / insert processes, If child node is safe release all locks on ancestors.
- d. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent
- e. Once child is locked by X lock, check if it is safe before release the locks.

[Next page](#) 



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Consider the given statements about transactions scheduling,

- A- Serializable schedule preserves consistency
- B- In equivalent schedules; the effect of one transaction on database is identical to the effect of other transaction.
- C- In serial schedule there are interleave actions of different transactions.

Select the **incorrect** statements.

Select one or more:

- a. A only
- b. B only
- c. A,B, C
- d. A, C only
- e. C only



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Select correct statement/s about handling deadlocks in database systems.

Select one or more:

- a. In deadlock prevention, priorities are assigned to transactions based on timestamps
- b. To detect deadlock, Periodically check for cycles in the waits-for graph
- c. In wait -die, if the transaction that requires the property holds by other transaction have high priority, it will wait and die.
- d. Wait-Die and Wait-wound are the two deadlock prevention mechanisms.
- e. When deadlock occurs, victim is the transaction which is going to wait.

Which of the following is true relate to Object Relational Database Systems?

Select one:

- a. They have the ability to store complex data types.
- b. They are used to create tables without constraints.
- c. They are most useful for traditional, two-dimensional database tables.
- d. They are overtaking RDBMS for all applications.
- e. All of them.



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Question 8

Not yet answered

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2.00

Flag question

What is/are wrong about "REF" in Oracle ORDB?

Select one or more:

- a. Accessing the object referred to by a REF is called dereferencing the REF
- b. A REF column can be assigned a null value
- c. REF is not a built-in data type in Oracle
- d. Oracle does not allow Unique or PRIMARY KEY constraints on REF columns.
- e. All of them

[Next page](#)

Quiz navigation

DECLARATION

1

SECTION A - MCQ TYPE QUESTIONS

2 3 4 5 6 7 8 9

10 11 12 13 14 15 16 17

18 19 20 21 22 23 24 25

26 27 28 29 30 31

SECTION B - ESSAY TYPE QUESTIONS

32 33 34 35 36 37 38 39

FEEDBACK

40

[Finish attempt](#)

Time left 1:39:34



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Question 26

Not yet answered

Marked out of
2.00

Flag question

Which of the following is true relate to Object Relational Database Systems?

Select one:

- a. They are most useful for traditional, two-dimensional database tables.
- b. All of them.
- c. They are used to create tables without constraints.
- d. They are overtaking RDBMS for all applications.
- e. They have the ability to store complex data types.



Online Exams

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Question 10

Not yet answered

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2.00

Flag question

What is the Oracle command to create a VARRAY TYPE?

Select one or more:

- a. Create ROW TYPE excharray AS of varchar(12)
- b. Create ROW TYPE excharray AS varray(5)
- c. Create TYPE excharray AS varray(5)
- d. Create TYPE excharray AS varray(5) of varchar(12)
- e. Create ROW TYPE excharray AS varray(5) of varchar(12)

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Question 13

Not answered

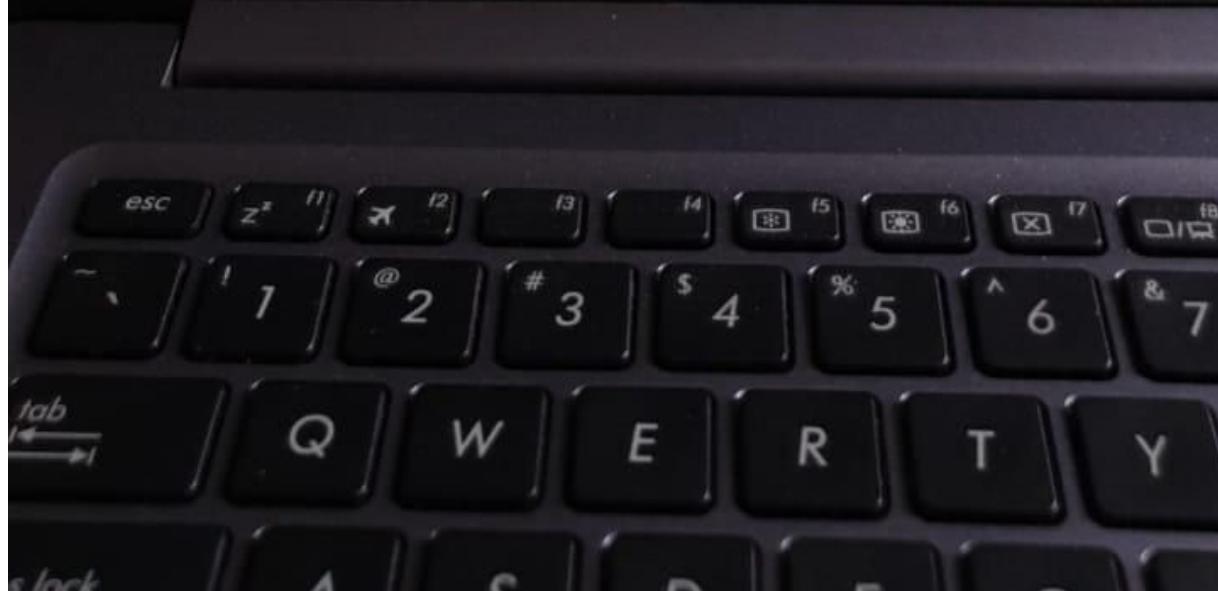
1 out of 1

Flag question

What is/ are correct about VARRAY?

Select one or more:

- a. Can't be used as the data-type of a column of a relational table.
- b. Creating an array type does allocate space.
- c. Can be used an attribute data-type in an object type definition.
- d. VARRAY is not only a type definition
- e. VARRAY is a kind of data type that can't initializing as a TYPE.



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Online Exams

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Question 13

Not answered

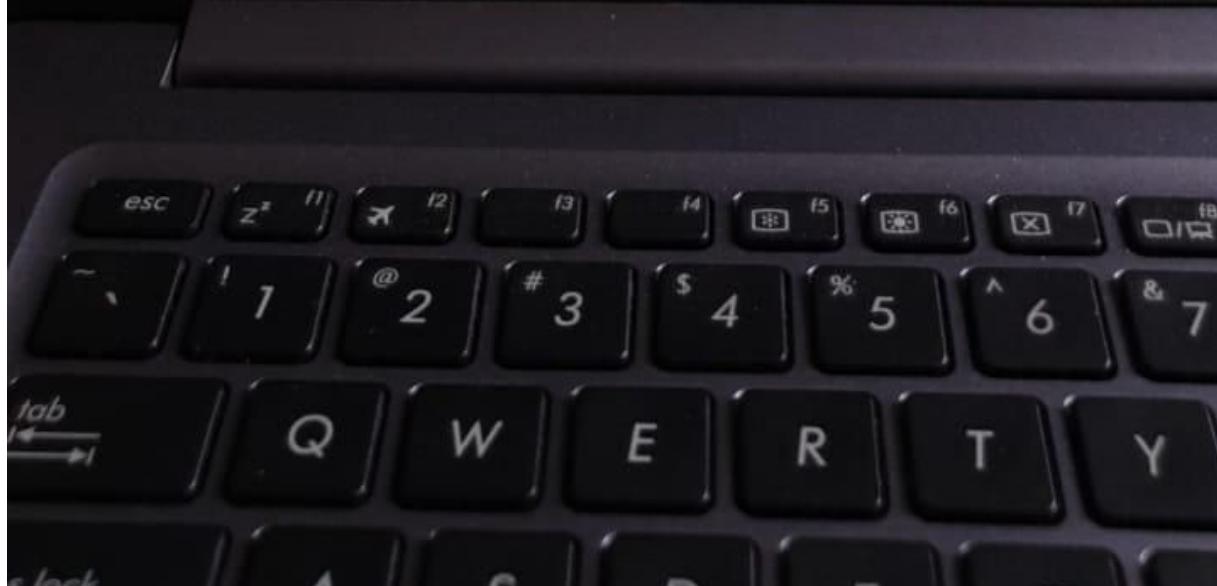
1 out of 1

Flag question

What is/ are correct about VARRAY?

Select one or more:

- a. Can't be used as the data-type of a column of a relational table.
- b. Creating an array type does allocate space.
- c. Can be used an attribute data-type in an object type definition.
- d. VARRAY is not only a type definition
- e. VARRAY is a kind of data type that can't initializing as a TYPE.



What are the passes count and cost of 5 buffer pages and 112 page file in external merge sort?

Select one:

- a. 4, 672
- b. 4, 896
- c. 5, 560
- d. 3, 560
- e. 3, 448



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Question 4

Not yet answered

Marked out of
2.00

Flag question

Assume you have 9 buffer pages to sort 120 pages in a file. How many passes we get in external merge sort?

Select one:

- a. 5
- b. 3
- c. 6
- d. 2
- e. 4

≡ Quiz nav

DECLARATION

1

SECTION A

2

3

9 10

16

11

23

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3

answered
out of
question

Choose inappropriate rule(s) for Strict 2PL protocol.

Select one or more:

- a. None of the Them
- b. Each transaction must obtain an X lock on object before reading
- c. Each transaction must obtain an X lock on object before writing
- d. If a transaction holds an X lock on an object, no other transaction can get a lock on that object.
- e. When transaction completes, all locks held by transaction are released.



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yet answered

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Flag question

What is/are correct about the following statement?

CREATE TYPE StudentType AS OBJECT (

 name CHAR(20),

 addr CHAR(20))

/

- A. This the way we create a type in Oracle
- B. We can insert values to objects without creating tables
- C. We should initialize the all attributes at the object creation
- D. In Oracle, type definitions must be executed before the table creation
- E. All of above

Select one:

- a. Only A and D
- b. Only B and C
- c. All are correct
- d. Only A and B
- e. Only A



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What is **not** important to decide best query execution plan

Select one or more:

- a. Number of disk accesses
- b. Communication costs in distributed or parallel database systems
- c. The time rollback sessions have occurs.
- d. Number of steps follow to get the estimation
- e. Execution time



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Question 26

Not yet answered

Marked out of
2.00

Flag question

Which of the following is true relate to Object Relational Database Systems?

Select one:

- a. They are most useful for traditional, two-dimensional database tables.
- b. All of them.
- c. They are used to create tables without constraints.
- d. They are overtaking RDBMS for all applications.
- e. They have the ability to store complex data types.



Online Exams

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lion 3

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ed out of

ag question

Select motivation for concurrent transactions.

Select one or more:

- a. By interleaving actions of different transactions, DBMS can improve performance
- b. CPU can process one transaction while another is waiting for a page to be read from disk
- c. greater system utilization
- d. Predictable delay from request to completion
- e. Interleaving short transactions with longer transactions allows to complete quicker



Nex



What is the correct OR-SQL query that retrieve the values from VARRAY?

```
CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
```

```
/
```

```
CREATE TABLE pricelist (
```

```
pno integer,
```

```
prices price_arr
```

```
)
```

```
/
```

Select one or more:

- a.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
```
- b.

```
SELECT pno, p.REF.price_arr.price
FROM pricelist p
```
- c.

```
SELECT pno, p. COLUMN_VALUE.price
FROM pricelist p
```
- d.

```
SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```
- e.

```
SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
```



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g question

Choose inappropriate rule(s) for Strict 2PL protocol.

Select one or more:

- a. None of the Them
- b. Each transaction must obtain an X lock on object before reading
- c. Each transaction must obtain an X lock on object before writing
- d. If a transaction holds an X lock on an object, no other transaction can get a lock on that object.
- e. When transaction completes, all locks held by transaction are released.



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Question 10

Not yet answered

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2.00

Flag question

What is the Oracle command to create a VARRAY TYPE?

Select one or more:

- a. Create ROW TYPE exchararray AS varray(5)
- b. Create TYPE exchartay AS varray(5)
- c. Create ROW TYPE exchararray AS varchar(12)
- d. Create TYPE exchararray AS varray(5) of varchar(12)
- e. Create ROW TYPE exchararray AS varray(5) of varchar(12)

[Next page](#)

☰ Quiz navigation

DECLARATION

1

SECTION A - MCQ TYPE QUESTIONS

2 3 4 5 6 7 8 9

10 11 12 13 14 15 16 17

18 19 20 21 22 23 24 25

26 27 28 29 30 31

SECTION B - ESSAY TYPE QUESTIONS

32 33 34 35 36 37 38 39

FEEDBACK

40

[Finish attempt](#) ...

Time left: 1:35:55



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et answered

ed out of

ag question

Which of the following can not be NULL?

Select one or more:

- a. Object attribute value
- b. A collection, or collection element
- c. A column value in a table
- d. Object
- e. None of above



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Select the mechanism(s) that can be avoided the phantom problem in dynamic databases?

Select one or more:

- a. Simple Tree Locking Algorithm
- b. Index locking
- c. Strict 2PL locking
- d. Multiple granularity locking
- e. Write ahead Locking



Question 12

Not yet answered

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0.00

Flag question

Which is/are NOT a rule of creating B+ tree?

Select one or more:

- a. If search value < node value, then point to the left side
- b. If search value = node value, then point to left side.
- c. If search value < node value, then point to the right side
- d. If search value > node value, then point to right side.
- e. Root node has minimum one value



Question 11

Not yet answered

Marked out of
2.00

Flag question

Choose the options that are not the properties of a transaction.

Select one or more:

- a. Durability
- b. Partition tolerance
- c. Consistency
- d. Isolation
- e. Availability



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- Question 3
Not yet answered
Marked out of 2.00
Flag question
- Consider the given statements about transactions scheduling.
- A. Serializable schedule preserves consistency
 - B. In equivalent schedules, the effect of one transaction on database is identical to the effect of other transaction.
 - C. In serial schedule there are interleave actions of different transactions.

Select the incorrect statements.

Select one or more:

- a. A only
- b. B only
- c. C only
- d. A,B,C
- e. A,C only

New Page

Finish attempt
Time left 1:52:30

SECTION A - MCQ TYPE QUESTIONS	SECTION B - ESSAY TYPE QUESTIONS
10	21
11	22
12	23
13	24
14	25
15	26
16	27
17	28
18	29
19	30
20	31
21	32
22	33
23	34
24	35
25	36
26	37
27	38
28	39
29	40
30	

FEEDBACK



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Question 13

Not yet answered

Marked out of
2.00

Flag question

What is/are true about Extendible Hashing?

Select one or more:

- a. Bucket overflow may occur with data size increase
- b. Not applicable with large databases
- c. Good for range selections
- d. Not good for equality selections
- e. Index uses a directory for fast searching

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How differ Static Hashing from Extendible Hashing?

Select one or more:

- a. Less complex for implementation.
- b. Performance is not affected when file is growing
- c. Allow fixed number of primary buckets to store the records
- d. Does not create long overflow chains
- e. Primary nodes will delete if empty

Question 3

Not yet answered

Marked out of

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Flag question

What are the steps in query processing?

Select one or more:

- a. Optimization
- b. Evaluation
- c. Distribution
- d. Segregation
- e. Parsing and Translation



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Select **incorrect** statement/s about simple tree locking algorithm

Select one or more:

- a. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent
- b. In delete / insert processes, if child node is safe release all locks on ancestors.
- c. Once child is locked by X lock, check if it is safe before release the locks.
- d. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- e. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.

Consider a type T with attributes A and B. Let S be a subtype of T with additional attributes C and D. Suppose R is a table of type T.

(i) How do you insert an instance of type S into R?

(2.5 marks)

(ii) How do you retrieve only instances of type S from R?

(2.5 marks)

A screenshot of a software application window. At the top, there is a toolbar with several icons: a grid icon, a dropdown arrow, the letter 'B', the letter 'I', another dropdown arrow, a list icon, a key icon, a gear icon, and a magnifying glass icon. Below the toolbar is a large, empty, light-colored workspace area.

Assume you have 9 buffer pages to sort 120 pages in a file. How many passes we get in external merge sort?

Select one:

- a. 3
- b. 5
- c. 6
- d. 4
- e. 2



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Which of the following can not be NULL?

Select one or more:

- a. Object
- b. None of above
- c. A column value in a table
- d. A collection, or collection element
- e. Object attribute value

Consider the following XML document for the questions given below:
XML file

```
'<dept bldg = "101">
<employee id="135">
    <name>Ramesh</name>
    <phone>0714123123</phone>
    <office>344</office>
</employee>
<employee id="137">
    <name>Prakash</name>
    <phone>0777123123</phone>
    <office>345</office>
</employee>
</dept>'
```

Note that the above XML document stored in *Department(emp xml)* table created in MS SQL.

(i.) What is the output of the following XPath expression:

```
SELECT emp.query ('//employee[office="344" or @id="135"]/name')
FROM department
```

(ii) What would be the output of the following XPath expression?

```
SELECT emp.query('/dept/employee[2]/name')
FROM department
```



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Question 4

Not yet answered

Marked out of
2.00

Flag question

Consider the following statements,

- A - Let clause is **not** the convenient way to bind a variable
- B - Where clause can be used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. A and C only
- b. B and C only
- c. A only
- d. B only
- e. A and B only

Moodle

← → X C | ⓘ | D

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Question 2
Not yet answered
Marked out of 2.00
[Flag question](#)

What is wrong about a XML document.

A - XML Documents must have a root element
B - XML Attributes must be quoted
C - XML Elements must be properly nested

Select one or more:

a. A and B only
 b. B and C only
 c. C only
 d. B only
 e. A Only

ASUS VivoBook

1 2 3 4 5 6 7 8 9
Q W E R T Y U I
A S D F G H J K L



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Consider the following statements,

- A - Let clause is **not** the convenient way to bind a variable
- B - Where clause can be used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. B and C only
- b. A and C only
- c. A and B only
- d. A only
- e. B only

Moodle

Question 34
Not yet answered
Marked out of 5.00
Flag question

Consider a type T with attributes A and B. Let S be a subtype of T with additional attributes C and D. Suppose R is a table of type T.

(i) How do you insert an instance of type S into R? (2.5 marks)

(ii) How do you retrieve only instances of type S from R? (2.5 marks)

SECTION A : MCQ TYPE QUESTIONS

1	2	3	4	5	6	7
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SECTION B : ESSAY TYPE QUESTIONS

32	33	34	35	36	37	38
39						

39



Consider the following statements.

- A - Let clause is **not** the convenient way to bind a variable
- B - Where clause can used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. A and B only
- b. B only
- c. A and C only
- d. B and C only
- e. A only

Select root causes for un-serializable schedules.

Select one or more:

- a. Overwriting uncommitted data
- b. Unrepeatable reads
- c. Serial schedules
- d. Equivalent schedules
- e. Dirty reads

```
create type emp_t AS OBJECT(
    EMPNO CHAR(6),
    FIRSTNAME VARCHAR(12),
    LASTNAME VARCHAR(15),
    WORKDEPT REF dept_t,
    SEX CHAR(1),
    BIRTHDATE DATE,
    SALARY NUMBER(8,2)
)
```

```
create table OREMP of emp_t (
```

```
)
```

```
/
```

Select one or more:

- a.
Insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass',
(select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- b.
Insert into OREMP values (EMP_T ('000010', 'Christine', 'Hass',
(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- c.
Insert into OREMP values REF ORDEPT ('000010', 'Christine', 'Hass', 'Planning', 'P', '14-AUG-1953', 72750))
- d.
Insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass',
(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- e.
Insert into OREMP values(EMP_T('000010', 'Christine', 'Hass',
(select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))



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Consider the following statements about transactions.

- A - DBMS logs all actions so that it can undo the actions of aborted transactions.
- B - DBMS are mainly responsible for ensuring transaction consistency.
- C - A committed transaction is always reflected in the database.

Select the correct statements

Select one:

- a. A and B only
- b. B only
- c. A only
- d. C only
- e. A and C only

**Question 12**

Not yet answered

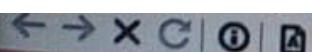
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Flag question

Choose inappropriate rule(s) for Strict 2PL protocol.

Select one or more:

- a. Each transaction must obtain an X lock on object before reading
- b. None of the Them
- c. If a transaction holds an X lock on an object, no other transaction can get a lock on that object.
- d. Each transaction must obtain an X lock on object before writing
- e. When transaction completes, all locks held by transaction are released.

**Question 2**

Not yet answered

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Flag question

What is the correct insert statement according to the following table creation?

```
create type emp_t AS OBJECT(
    EMPNO CHAR(6),
    FIRSTNAME VARCHAR(12),
    LASTNAME VARCHAR(15),
    WORKDEPT REF dept_t,
    SEX CHAR(1),
    BIRTHDATE DATE,
    SALARY NUMBER(8,2)
)
```

```
create table OREMP of emp_t (
)
/
```

Select one or more:

- a.
insert into OREMP values REF ORDEPT ('000010', 'Christine', 'Hass', 'Planning', 'F', '14-AUG-1953', 72750)
- b.
insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass',
(select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- c.
insert into OREMP values (EMP_T ('000010', 'Christine', 'Hass',
(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- d.
insert into OREMP values REF ORDEPT('000010', 'Christine', 'Hass'
(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
- e.
insert into OREMP values(EMP_T('000010', 'Christine', 'Hass',
(select Dname from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))

≡ Quiz navigation**DECLARATION****1****SECTION A - MCQ TYPE QUESTIONS**

2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25
26	27	28	29	30	31		

SECTION B - ESSAY TYPE QUESTIONS

32	33	34	35	36	37	38	39
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FEEDBACK**40**

Finish attempt...

Time left 1:57:49



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ion 10

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eg question

Which of the following is true relate to Object Relational Database Systems?

Select one:

- a. They are most useful for traditional, two-dimensional database tables.
- b. All of them.
- c. They are overtaking RDBMS for all applications.
- d. They have the ability to store complex data types.
- e. They are used to create tables without constraints.

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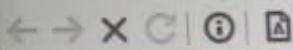
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Next page

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Question 9

Not yet answered

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Flag question

How to comment in XML?

Select one or more:

- a. <!-- -?>
- b. <!-- -->
- c. <?- -?>
- d. <!-- -->
- e. <!-- -?>

What is co-dependent types in Object Relational Model.

Select one:

- a. None of the them
- b. Conflicts between two tables
- c. Cycle of references between two types.
- d. Cycle of references between two table.
- e. Conflicts between two types of data objects



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Question 16

Not yet answered
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Flag question

Which is/are NOT a rule of creating B+ tree?

Select one or more:

- a. Root node has minimum one value
- b. If search value = node value, then point to left side.
- c. If search value > node value, then point to right side.
- d. If search value < node value, then point to the right side
- e. If search value < node value, then point to the left side



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Question 10

Not yet answered

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Flag question

Database D contains a relation R . Relation R contains a page P . Page P contains a tuple t . By assuming that multiple granularity locking scheme is used.

Select the correct order of locks acquired when reading all tuples of page P .

Select one or more:

- a. IS lock on database, IS lock on relation R, S lock on page P
- b. IS lock on database, IS lock on relation R, IS lock on page P
- c. IS lock on database, IX lock on relation R, X lock on page P
- d. IX lock on database, IX lock on relation R, X lock on page P
- e. IS lock on database, IS lock on relation R, X lock on page P

Next Page



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What is the **incorrect** line in the following code?

```
Line 1 <book>
Line 2 <Paper category="Web">
Line 3 <bname>XML Tutorials</bname>
Line 4 <pages>200</pages>
Line 5 <price>800.00</Price>
Line 6 </book>
```

Select one or more:

- a. Line 2 and Line 5
- b. Line 5 only
- c. Line 1 and Line 5 only
- d. Line 2 Only
- e. Line 3 and Line 4

**Question 7**

Not yet answered

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Flag question

Consider the following statements,

- A - Let clause is not the convenient way to bind a variable
- B - Where clause can be used to filter results
- C - For and Let can be repeated and combined

What is/are correct from above statements

Select one or more:

- a. B and C only
- b. A and C only
- c. A only
- d. A and B only
- e. B only



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Question 9

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Flag question

Assume you have 5 buffer pages to sort 72 page files. Calculate the cost with external merge sort.

Select one:

- a. 432
- b. 576
- c. 75
- d. 216
- e. 87



Select **incorrect** statement/s about simple tree locking algorithm

Select one or more:

- a. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent
- b. In delete / insert processes, If child node is safe release all locks on ancestors.
- c. Once child is locked by X lock, check if it is safe before release the locks.
- d. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- e. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.



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Question 5

Not yet answered

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What is/are the types of built in function in Xml?

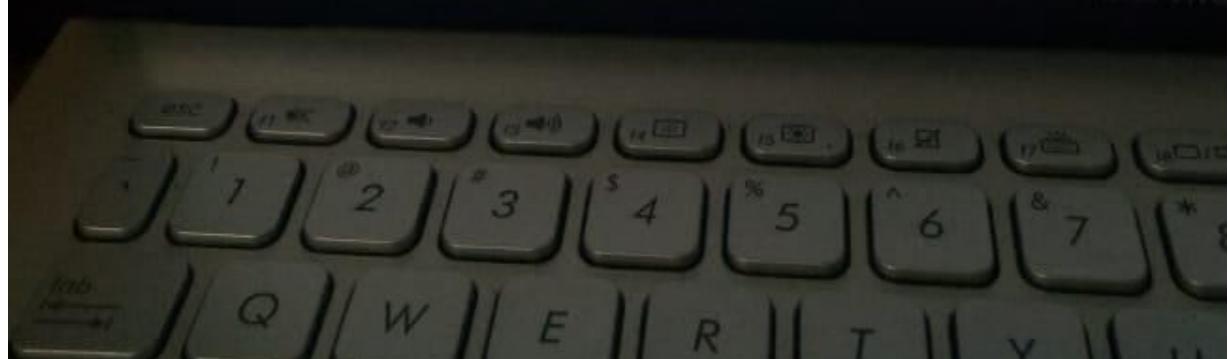
- A - Number Related
- B - Sequence Related
- C - Error handling and trapping
- D - String related

Select one or more:

- a. B, C and D only
- b. C only
- c. A, C, D only
- d. A and C only
- e. All of them



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ag question

Select **incorrect** statement/s about simple tree locking algorithm

Select one or more:

- a. To delete data in nodes traverse the tree from bottom to up, while obtaining X locks as needed.
- b. If node is full; it is safe to insert data and if node is half-full; it is safe to delete data.
- c. Once child is locked by X lock, check if it is safe before release the locks.
- d. In delete / insert processes, If child node is safe release all locks on ancestors.
- e. Searching data start from root and go down repeatedly, while holding S lock on child, then unlock parent

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Question 10

Not yet answered

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Flag question

What is/ are correct about VARRAY?

Select one or more:

- a. Can be used an attribute data-type in an object type definition.
- b. VARRAY is not only a type definition
- c. VARRAY is a kind of data type that can't initializing as a TYPE.
- d. Creating an array type does allocate space.
- e. Can't be used as the data-type of a column of a relational table.

Next

Question 4

Not yet answered

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 Flag question

What is the correct OR-SQL query that retrieve the values from VARRAY?

```
CREATE TYPE price_arr AS VARRAY(10) OF NUMBER(12,2)
```

/

```
CREATE TABLE pricelist (
```

```
    pno integer,
```

```
    prices price_arr,
```

)

/

Select one or more:

- a.

```
SELECT pno, s.COLUMN_VALUE price
      FROM pricelist p, TABLE(p.prices) s;
```
- b.

```
SELECT pno, p. COLUMN_VALUE.price
      FROM pricelist p
```
- c.

```
SELECT pno, p.REF.price_arr.price
      FROM pricelist p
```
- d.

```
SELECT pno, p.REF.price_arr.price
      FROM pricelist p, TABLE(p/prices) REF
```
- e.

```
SELECT pno, p.s.COLUMN_VALUE price
      FROM pricelist p, TABLE(p/prices) s;
```

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SECTION

2 3

9 10

16 17

23 24

30 31

SECTION B - E

32 33 34

39

FEEDBACK



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What is/are **not** table joining algorithms in query processing

Select one or more:

- a. Page oriented Nested loop join
- b. Block nested loop join
- c. Index nested loop join
- d. External merge sort algorithm
- e. Simple Nested loop join

Question 10

Not yet answered

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Flag question

Consider the scenario given below.

T_1 T_2

W(A)

R(A)

W(B)

If T_1 is aborted, select **incorrect** statement/s given below.

Select one or more:

- a. T_2 will wait until T_1 recommitted
- b. All actions of T_1 will be undone.
- c. It is an unrecoverable Schedule
- d. T_2 will be committed
- e. Cascading aborts will happen

Database D contains a relation R . Relation R contains a page P . Page P contains a tuple t . By assuming that multiple granularity locking scheme is used.

Select the correct order of locks acquired when reading all tuples of page P .

Select one or more:

- a. IS lock on database, IS lock on relation R , X lock on page P
- b. IS lock on database, IX lock on relation R , X lock on page P
- c. IX lock on database, IX lock on relation R , X lock on page P
- d. IS lock on database, IS lock on relation R , S lock on page P
- e. IS lock on database, IS lock on relation R , IS lock on page P





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Marker 34
New assessment
Marking of
Q&A
File manager

Compare the tree-based and hash-based indexing techniques.

(5 marks)

Tree based

- 1 support both range searches and equality searches
- 2 keep tree height balanced
- 3 make unique key values
- 4 duplicate values in the leaf pages

hash-based indexing
can not support range searches
best for equality selection
no unique key values
no duplicate values in

≡ Quiz navigation

DECLARATION

1

SECTION A - MCQ TYPE QUESTIONS

2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SECTION B - ESSAY TYPE QUESTIONS

32	33	34	35	36	37	38
39						



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question

What are the passes count and cost of 5 buffer pages and 112 page file in external merge sort?

Select one:

- a. 3, 560
- b. 5, 560
- c. 3, 448
- d. 4, 896
- e. 4, 672

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Question 34
Not yet answered
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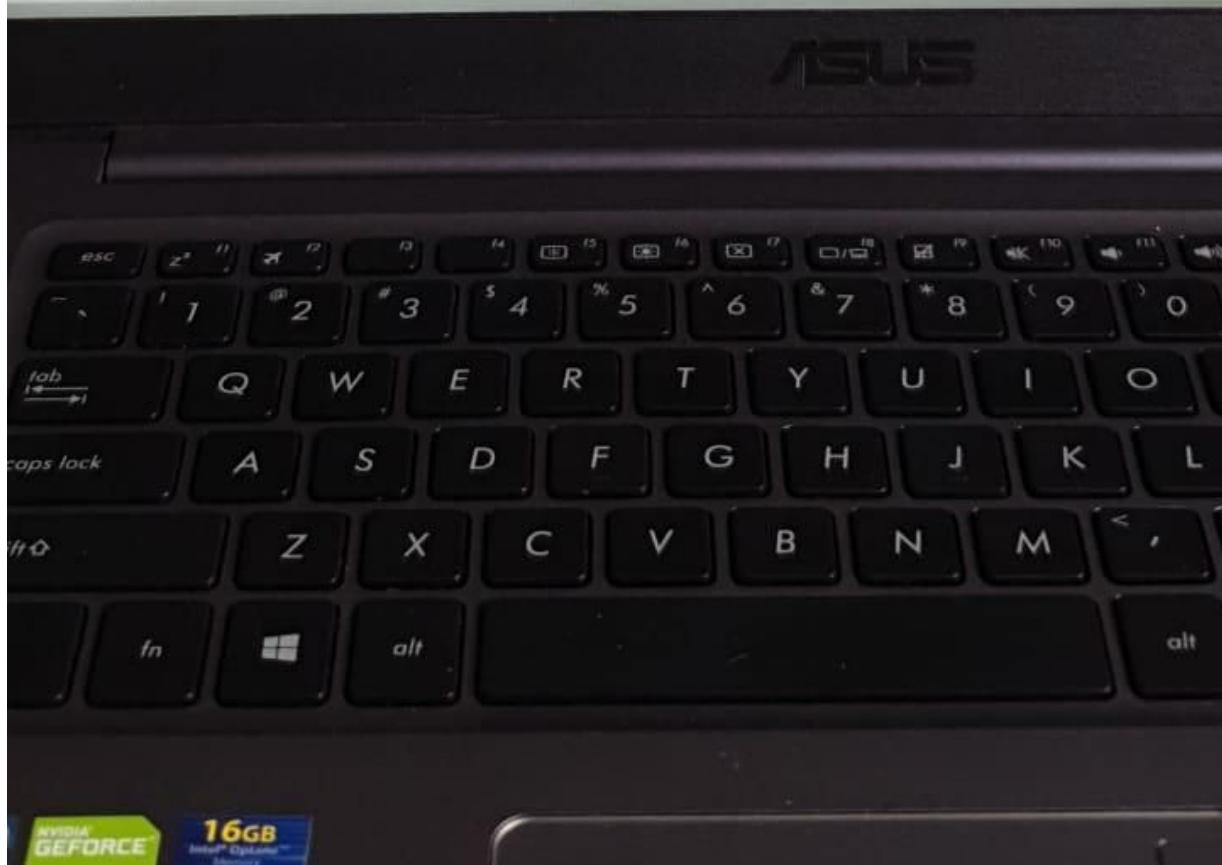
Consider the following XML document for the questions given below:
XML file:

```
<dept bldg = "101">
    <employee id="135">
        <name>Ramesh</name>
        <phone>0714123123</phone>
        <office>344</office>
    </employee>
    <employee id="137">
        <name>Prabash</name>
        <phone>0777123123</phone>
        <office>345</office>
    </employee>
</dept>
```

Note that the above XML document stored in *Department(emp xml)* table created in MS SQL Server and it contains only single record.

(i.) What is the output of the following XPath expression?
SELECT emp.query ('//employee[office="344" or @id="135"]/name')
FROM department

(ii.) What would be the output of the following XPath expression?
SELECT emp.query('/dept/employee[2]/name')
FROM department



What is the correct insert statement according to the following table creation?

```
create type emp_t AS OBJECT(
    EMPNO CHAR(6),
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    SEX CHAR(1),
    BIRTHDATE DATE,
    SALARY NUMBER(8,2)
)
```

```
create table OREMP of emp_t (
)
/
```

Select one or more:

- a.
Insert into OREMP values (EMP_T ('000010', 'Christine', 'Hass',
(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
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(select ref(d) from ORDEPT d where d.DEPTNO = 'A00'), 'F', '14-AUG-1953', 72750))
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- e.
Insert into OREMP values REF ORDEPT ('000010', 'Christine', 'Hass', 'Planning', 'F', '14-AUG-1953', 72750))



How differ Static Hashing from Extendible Hashing?

Select one or more:

- a. Does not create long overflow chains
- b. Less complex for implementation.
- c. Primary nodes will delete if empty
- d. Performance is not affected when file is growing
- e. Allow fixed number of primary buckets to store the records

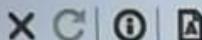
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Assume you have 5 buffer pages to sort 72 page files. Calculate the cost with external merge sort.

Select one:

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question

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```
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/
CREATE TABLE pricelist (
    pno integer,
    prices price_arr
)
/
```

Select one or more:

- a. SELECT pno, p.REF.price_arr.price
FROM pricelist p, TABLE(p.prices) REF
- b. SELECT pno, p.REF.price_arr.price
FROM pricelist p
- c. SELECT pno, p. COLUMN_VALUE.price
FROM pricelist p
- d. SELECT pno, p.s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;
- e. SELECT pno, s.COLUMN_VALUE price
FROM pricelist p, TABLE(p.prices) s;

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Question 10

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What are the passes count and cost of 5 buffer pages and 112 page file in external merge sort?

Select one:

- a. 4, 896
- b. 4, 672
- c. 5, 560
- d. 3, 560
- e. 3, 448



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Tag question

Consider the following XML document for the questions given below:
XML file

```
'<dept bldg = "101">
  <employee id="135">
    <name>Ramesh</name>
    <phone>0714123123</phone>
    <office>344</office>
  </employee>
  <employee id="137">
    <name>Prabash</name>
    <phone>0777123123</phone>
    <office>345</office>
  </employee>
</dept>'
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```
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FROM department
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(ii) What would be the output of the following XPath expression?

```
SELECT emp.query('/dept/employee[2]/name')
FROM department
```

