


Name:	
Enrolment No:	
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES	
End Semester Examination, July 2020	
Course: Database Management Systems	Semester: II
Course Code: CSEG 1005	Time: 2 hours
Programme: B.Tech. CSE+LLB/IPR	Max. Marks: 100
Instructions: Attempt all questions. Backtracking is prohibited.	



Mitali Chugh 152 ▾

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Tests, Surveys and Pools Tests **Test Canvas : DBMS ESE_10th July 2020**

Test Canvas: DBMS ESE_10th July 2020

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Question Settings

You can edit, delete or change the point values of test questions on this page. If necessary, test attempts will be regraded after you submit your changes.

Description	Number of Questions:60 MM 100 Time 2 hours
Instructions	Attempt all Questions
Total Questions	60
Total Points	100
Number of Attempts	15

Select: [All](#) [None](#) | Select by Type: - Question Type - ▾

Delete and Regrade

Points

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Hide Question Details

1. Multiple Choice: Data about data is normally termed as

Points: 1

[Type here]

Question	Data about data is normally termed as
Answer	Directory
	Data bank
	Meta data
	None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

 2. Multiple Choice: A view of database that appears to an...

Points: 1

Question	A view of database that appears to an application program is known as
Answer	<input type="checkbox"/> Schema <input checked="" type="checkbox"/> subschema <input type="checkbox"/> virtual table <input type="checkbox"/> None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

 3. Multiple Choice: Business analysts, scientists and eng...

Points: 2

Question	Business analysts, scientists and engineers are_____ database users.
Answer	<input checked="" type="checkbox"/> Sophisticated <input type="checkbox"/> Casual <input type="checkbox"/> Naive <input type="checkbox"/> Occasional

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

 4. Multiple Choice: The level of data abstraction which d...

Points: 1

Question	The level of data abstraction which describes how the data is actually stored
Answer	<input type="checkbox"/> conceptual level

Physical level

file level

None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

5. Multiple Choice: The collection of information stored ...

Points:

Question The collection of information stored in a database at a particular moment is

Answer View

Schema

instance

None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

6. Multiple Choice: A data model is

Points:

Question A data model is

Answer used to describe structure of database

set of basic operations on database

Both a and b

None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

7. Multiple Choice: Which one of the following provides ...

Points:

2

Question

Which one of the following provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database?

Answer

Data Manipulation Language (DML)

Data Definition Language

Query



Relational Schema

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO1	CO1	Course Goals	Course Objectives



8. Multiple Choice: The basic data type char(n) is a ____...

Points: **2**



Question

The basic data type char(n) is a ____ length character string and varchar(n) is ____ length character.

Answer

Fixed, equal

Equal, variable

Fixed, Variable



Variable, equal

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO1	CO1	Course Goals	Course Objectives



9. Multiple Choice: Manager's salary details are hidden f...

Points: **2**



Question

Manager's salary details are hidden from the employee. This is

Answer

Conceptual level data hiding



Physical level data hiding

External level data hiding

[Type here]

None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

10. Multiple Choice: "The _____ schema hides the deta...

Points: 1

Question "The _____ schema hides the details of physical storage structures and concentrates on describing entities, data types, relationships, user operations, and constraints."

- Answer**
- internal
 - conceptual
 - external
 - user

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

11. Multiple Choice: Which of the following statements is ...

Points: 2

Question Which of the following statements is false?

- Answer**
- The data dictionary is normally maintained by the database administrator.
 - Data elements in the database can be modified by changing the data dictionary.
 - The data dictionary contains the name and description of each data element.
 - A data dictionary is a tool used exclusively by the database administrator.

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/>	CO1	CO1	Course Goals	Course Objectives

12. Multiple Choice: The figure shows

Points: 2

Question



RELATIONS

Relation_name	No_of_columns
STUDENT	4
COURSE	4
SECTION	5
GRADE_REPORT	3
PREREQUISITE	2

COLUMNS

Column_name	Data_type	Belongs_to_relation
Name	Character (30)	STUDENT
Student_number	Character (4)	STUDENT
Class	Integer (1)	STUDENT
Major	Major_type	STUDENT
Course_name	Character (10)	COURSE
Course_number	XXXXNNNN	COURSE
....
....
....
Prerequisite_number	XXXXNNNN	PREREQUISITE

The figure shows

Answer

Database

Database and database catalogue

Database and program data independence

Database and Database management system

Active Goals
Actions

ID	Goal	Goal Set Name	Category
CO1	CO1	Course Goals	Course Objectives



13. Multiple Choice: Which of the following are the proper...

Points: 1

Question



Which of the following are the properties of the entities?

[Type here]

Answer	Groups
	table
	attributes
	switchboards

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

14. Multiple Choice: An association between students and c...

Points: 2

Question	An association between students and courses is:
Answer	1:1 relationship
	1:M relationship
	<input checked="" type="checkbox"/> M:M relationship
	None of the mentioned

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

15. Multiple Choice: ER model uses this symbol to represen...

Points: 1

Question	ER model uses this symbol to represent weak entity set
Answer	Dotted rectangle
	Diamond
	<input checked="" type="checkbox"/> Doubly outlined rectangle
	None of the mentioned

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

16. Multiple Choice: Which are the two ways in which entit...

Points: 2

Question Which are the two ways in which entities can participate in a relationship?

- Answer Passive and Active
- Total and Partial
- Simple and complex
- All of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

17. Multiple Choice: "An _____ is a set of entities of ...

Points: 1

Question "An _____ is a set of entities of the same type that share the same properties, or attributes."

- Answer Entity set
- Attribute set
- Relation set
- Entity model

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

18. Multiple Choice: "The attribute name could be structur...

Points: 1

Question "The attribute name could be structured as an attribute consisting of first name, middle initial, and last name. This type of attribute is called"

- Answer Simple attribute
- Composite attribute
- Multivalued attribute

[Type here]

Derived attribute

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

19. Multiple Choice: The attribute AGE is calculated from ...

Points: 2

Question The attribute AGE is calculated from DATE_OF_BIRTH. The attribute AGE is

Answer Simple attribute

Composite attribute

Multivalued attribute

Derived attribute

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

20. Multiple Choice: Which of the following can be a multi...

Points: 1

Question Which of the following can be a multivalued attribute?

Answer Phone_number

Age

date of birth

All of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

21. Multiple Choice: Consider a directed line(->) from the...

Points: 2

Question Consider a directed line(->) from the relationship set advisor to both entity sets instructor and student. This indicates _____ cardinality

Answer One to many

One to one

Many to many

Many to one

22. Multiple Choice: "If you were collecting and storing i...

Points: 1

Question "If you were collecting and storing information about your music collection, an album would be considered a(n) _____"

Answer Relation

Entity

instance

attribute

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

23. Multiple Choice: The total participation by entities i...

Points: 1

Question The total participation by entities is represented in E-R diagram as

Answer Dashed line

Double line

Double rectangle

circle

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

24. Multiple Choice: The function that is used to find the...

Points: 2

Question The function that is used to find the total is _____

Answer Count()

max()

min()

 sum()**Active Goals**

Actions	ID	Goal	Goal Set Name	Category
	CO2	CO2	Course Goals	Course Objectives

 25. Multiple Choice: Which of the following is a fundament...

Points: 1

Question Which of the following is a fundamental operation in relational algebra?**Answer** Set intersection

Natural join

Assignment

 None of the mentioned**Active Goals**

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

 26. Multiple Choice: Which of the following is used to den...

Points: 1

Question Which of the following is used to denote the selection operation in relational algebra**Answer** Pi (Greek) Sigma (Greek)

lambda

omega

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

27. Multiple Choice: Which is a join condition contains an equality operator...

Points: 2

Question	Which is a join condition contains an equality operator:
Answer	<input checked="" type="checkbox"/> Equijoins <hr/> <input type="checkbox"/> Cartesian <hr/> <input type="checkbox"/> Natural <hr/> <input type="checkbox"/> Left

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

 28. Multiple Choice: Rename operation in relational algebra...

Points: 1

Question	Rename operation in relational algebra is represented as:
Answer	<input type="checkbox"/> Pi (Greek) <hr/> <input type="checkbox"/> Sigma (Greek) <hr/> <input checked="" type="checkbox"/> rho(greek) <hr/> <input type="checkbox"/> omega

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

 29. Multiple Choice: The result of this relational algebra...

Points: 2

Question	The result of this relational algebra operation on two relations R and S is a relation that includes all the tuples that are in R but not in S
Answer	<input type="checkbox"/> intersection <hr/> <input type="checkbox"/> union <hr/> <input checked="" type="checkbox"/> difference <hr/> <input type="checkbox"/> cartesian product

[Type here]

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

30. Multiple Choice: The count function in SQL returns the...

Points: 1

Question	The count function in SQL returns the number of _____
Answer	<input checked="" type="checkbox"/> values
	<input type="checkbox"/> distinct values
	<input type="checkbox"/> groups
	<input type="checkbox"/> columns

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

31. Multiple Choice: The relational algebra query that fin...

Points: 2

Question	The relational algebra query that finds the customer who have balance of over 1000 is
Answer	<input checked="" type="checkbox"/> P Customer_name(s balance>1000(Deposit))
	<input type="checkbox"/> s Customer_name(P balance>1000(Deposit))
	<input type="checkbox"/> P Customer_name(s balance>1000(borrow))
	<input type="checkbox"/> s Customer_name(P balance>1000(borrow))

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

32. Multiple Choice: Which of the following is legal opera...

Points: 2

Question	Which of the following is legal operations in SQL?
Answer	<input type="checkbox"/> SELECT NULL FROM EMPLOYEE;

SELECT NAME FROM EMPLOYEE;

SELECT NAME FROM EMPLOYEE WHERE SALARY=NULL;

None of the above

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO3	CO3	Course Goals	Course Objectives

33. Multiple Choice: Natural join is equal to?

Points:

Question	Natural join is equal to?
Answer	<input type="checkbox"/> Cartesian product <input type="checkbox"/> Combination of Union and Cartesian product <input type="checkbox"/> Combination of selection and Cartesian product <input checked="" type="checkbox"/> Combination of projection and Cartesian product

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO3	CO3	Course Goals	Course Objectives

34. Multiple Choice: "Consider the join of a relation R wi...

Points:

Question	"Consider the join of a relation R with S. If R has M tuples and S has N tuples, the maximum size of join is? "
Answer	<input checked="" type="checkbox"/> MN <input type="checkbox"/> M+N <input type="checkbox"/> M+N/2 <input type="checkbox"/> 2(M+N)

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO3	CO3	Course Goals	Course Objectives

35. Multiple Choice: The relational algebra operation that...

Points:

2

Question	The relational algebra operation that displays the selected columns is		
Answer	Project		
	Select	<input checked="" type="checkbox"/>	
	Join		
	cartesian product		

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO3	CO3	Course Goals	Course Objectives

Points: **2**

36. Multiple Choice: DB2 is a database management system for

Question	<input type="checkbox"/> DB2 is a database management system for
Answer	Desktop systems
	Microcomputers
	Mainframes
	Minicomputers

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

Points: **2**

37. Multiple Choice: There are _____ components in DB2

Question	There are _____ components in DB2
Answer	<input type="checkbox"/> 1
	2
	3
	4
	<input checked="" type="checkbox"/>

[Type here]

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

38. Multiple Choice: The component of DB2 responsible for ...

Points: **2**

Question	The component of DB2 responsible for its startup and shut down
Answer	DDF
	<input checked="" type="checkbox"/> System Service Component
	<input type="checkbox"/> IRLM
	<input type="checkbox"/> Database component

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

39. True / False: IRLM in DB2 is responsible for lockin...

Points: **2**

Question	IRLM in DB2 is responsible for locking mechanism
Answer	<input checked="" type="checkbox"/> True
	<input type="checkbox"/> False

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CO4	CO4	Course Goals	Course Objectives

40. Multiple Choice: The _____ component of DB2 is optiona...

Points: **2**

Question	The _____ component of DB2 is optional
Answer	component <input checked="" type="checkbox"/> DDF
	<input type="checkbox"/> IRLM
	<input type="checkbox"/> Both a and b
	<input type="checkbox"/> none of the mentioned

[Type here]

Active Goals

Actions	ID	Goal	Goal Set Name	Category
 	CO4	CO4	Course Goals	Course Objectives



Points: 2

41. Multiple Choice: The language which has recently become...

Question	The language which has recently become the defacto standard for interfacing application programs with relational database system is
Answer	Oracle
	<input checked="" type="checkbox"/> SQL
	Dbase
	4GL

Active Goals

Actions	ID	Goal	Goal Set Name	Category
 	CO4	CO4	Course Goals	Course Objectives



Points: 2

42. Multiple Choice: The concept which checks the syntax o...

Question	The concept which checks the syntax of query whether is written according to the rules of grammar is classified as
Answer	query graph
	query tree
	scanner
	<input checked="" type="checkbox"/> parser

Active Goals

Actions	ID	Goal	Goal Set Name	Category
 	CO4	CO4	Course Goals	Course Objectives



Points: 2

43. Multiple Choice: Query processing has _____ main ...

Question	Query processing has_____ main stages
Answer	<p>1</p> <hr/> <p><input checked="" type="checkbox"/> 2</p> <hr/> <p>3</p> <hr/> <p>4</p>

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

44. Multiple Choice: Which in the database which is a sof...

Points: **2**

Question	Which in the database which is a software component in the RDBMS that carries out analysis of SQL statement for finding the best way for its execution:
Answer	<p>Query execution</p> <hr/> <p>query process</p> <hr/> <p><input checked="" type="checkbox"/> query optimizer</p> <hr/> <p>Query transaction</p>

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

45. Multiple Choice: Optimization that is basically relate...

Points: **2**

Question	Optimization that is basically related to the rewriter module is termed as_____:
Answer	<p><input checked="" type="checkbox"/> Semantic query optimization</p> <hr/> <p>Global query optimization</p> <hr/> <p>Both</p> <hr/> <p>None</p>

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO4	CO4	Course Goals	Course Objectives

46. True / False: Different query optimization plans for a given query can have different costs.

Points: 1

Question Different query optimization plans for a given query can have different costs.

Answer True

False

Active Goals

Actions ID	Goal	Goal Set Name	Category
CO4	CO4	Course Goals	Course Objectives

47. Multiple Choice: A _____ forms a basic unit that c...

Points: 2

Question A _____ forms a basic unit that can be translated into relational algebra expression and optimized

Answer Query block

Query parser

query optimizer

Both A nad B

Active Goals

Actions ID	Goal	Goal Set Name	Category
CO4	CO4	Course Goals	Course Objectives

48. True / False: Nested queries within a query are ide...

Points: 1

Question Nested queries within a query are identified as separate query blocks.

Answer True

False

Active Goals

Actions ID	Goal	Goal Set Name	Category
CO4	CO4	Course Goals	Course Objectives

49. Multiple Choice: The syntax of user query is verified by

Points: 2

Question The syntax of user query is verified by

Answer Query optimizer

DBA

parser

None

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input type="checkbox"/>	CO4	CO4	Course Goals	Course Objectives

50. Multiple Choice: To convert a relation to 4NF the rela...

Points: 2

Question	To convert a relation to 4NF the relation must be in
Answer	<input checked="" type="checkbox"/> BCNF
	<input type="checkbox"/> 3NF
	<input type="checkbox"/> 2NF
	<input type="checkbox"/> 1NF

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input type="checkbox"/>	CO5	CO5	Course Goals	Course Objectives

51. Multiple Choice: "If A ? B, then AC ? BC always holds ...

Points: 2

Question	"If A ? B, then AC ? BC always holds is _____ axiom"
Answer	<input type="checkbox"/> transitivity
	<input checked="" type="checkbox"/> augmentation
	<input type="checkbox"/> decomposition
	<input type="checkbox"/> composition

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input checked="" type="checkbox"/> <input type="checkbox"/>	CO5	CO5	Course Goals	Course Objectives



[Type here]


52. Multiple Choice: "Consider a relation schema R (A , B...

Points:

2

Question "Consider a relation schema R (A , B , C , D) with the functional dependencies A ? B and C ? D. The decomposition of R into R1 (A , B) and R2 (C , D) is _____ "

Answer

- Lossless
- lossy
- May be lossy or lossless
- Both lossy and lossless 

Active Goals


Actions	ID	Goal	Goal Set Name	Category
	CO5	CO5	Course Goals	Course Objectives

53. Multiple Choice: The property of normalization of rela...

Points: **2**

Question The property of normalization of relations which guarantees that functional dependencies are represented in separate relations after decomposition is classified

as

- Answer**
- nonadditive join property
 - independency reservation property
 - dependency preservation property
 - additive join property 

Active Goals


Actions	ID	Goal	Goal Set Name	Category
	CO5	CO5	Course Goals	Course Objectives

54. Multiple Choice: If the attribute of relation schema R...

Points: **2**

Question If the attribute of relation schema R is not a member of some candidate key then this type of attribute is classified as

nonprime attribute

- Answer**
- prime attribute
 - atomic attribute 
 - candidate attribute

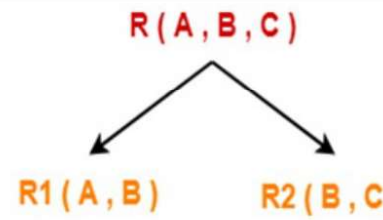
55. Multiple Choice: Which of the following is true?

Points: 2

Question

A	B	C
1	2	1
2	3	3
3	1	3

Which of the following is true?



Answer

The above decomposition is lossless join decomposition.

The above decomposition is not lossless join decomposition.

The above decomposition is sometimes lossless and sometimes it is not.

It can not be determined whether the decomposition is lossless or not.

Active Goals

Actions	ID
	CO5

Goal	Goal Set Name	Category
CO5	Course Goals	Course Objectives

56. True / False: R(A,B,C) F={ A-> B, B-> C} Deco...

Points: 2

Question

R(A,B,C) F={ A-> B, B-> C} Decomposition of R:R1(A,C),R2(B,C) is dependency preserving.

Answer

True

False

Active Goals

Actions	ID
	CO5

Goal	Goal Set Name	Category
CO5	Course Goals	Course Objectives

57. True / False: BCNF is stricter normal form than 3NF

Points: 2

Question

BCNF is stricter normal form than 3NF

Answer

True

False



[Type here]

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/> <input type="checkbox"/>	CO5	CO5	Course Goals	Course Objectives

58. True / False: Lossless join property can be comprom...

Points: 2

Question Lossless join property can be compromised when the relation is decomposed for normalization

Answer True
 True
 False

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/> <input type="checkbox"/>	CO5	CO5	Course Goals	Course Objectives

59. Multiple Choice: In a relation

Points: 2

Question In a relation

Answer No two rows are identical
Ordering of rows is immaterial
 A and B both are true
none of the mentioned

Active Goals

Actions	ID	Goal	Goal Set Name	Category
<input type="checkbox"/> <input type="checkbox"/>	CO5	CO5	Course Goals	Course Objectives

60. Multiple Choice:

Points: 2

Question

What is Wrong with this Statement?

```
SELECT employee_id, last_name
FROM employees
WHERE salary =
    (SELECT MIN(salary)
     FROM employees
     GROUP BY department id);
```

Answer

Nothing is wrong query is correct.

[Type here]

Single-row subquery returns more than one row

Multi-row subquery returns more than one row

Single-row subquery returns single row

Active Goals

Actions	ID	Goal	Goal Set Name	Category
	CO5	CO5	Course Goals	Course Objectives

Select: [All](#) [None](#) Select by Type:

Points

← OK