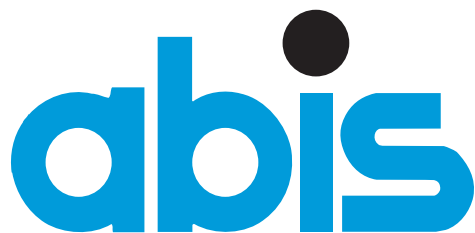


Self-test RDBMS concepts

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The logo for ABIS Training & Consulting. The word "abis" is written in a bold, blue, lowercase sans-serif font. A solid black circle is positioned above the letter 'i'. Below the text is a thick, horizontal grey bar.

TRAINING & CONSULTING

INTRODUCTION SELF-TEST RDBMS CONCEPTS

With this self-test you can see for yourself if you have enough background on relational database concepts to follow more advanced courses in this domain. The test is based on topics treated in the [RDBMS concepts](#) course.

This test consists of 20 multiple choice questions. Write down your responses and compare them with the solutions given on the last page. This test will take about fifteen minutes.

QUESTIONS SELF-TEST RDBMS CONCEPTS

1. Indicate whether this statement is true or false.

The domain of a column containing the month number of the date of birth of employees differs from the domain of a column with the day number of that date.

- (a) true
- (b) false

2. Indicate whether this statement is true or false.

Restricting the domain of a numeric column to non-negative values can be implemented with a check constraint.

- (a) true
- (b) false

3. Indicate whether this statement is true or false.

The restriction on the domain for the date of birth must be implemented with a check constraint when the aim is that for every employee the date of birth must be known.

- (a) true
- (b) false

4. Indicate whether this statement is true or false.

A NULL value means that a value is not known, or that a feature does not apply to a certain individual.

- (a) true
- (b) false

5. Indicate whether this statement is true or false.

The primary key column must contain unique values.

- (a) true
- (b) false

6. Indicate whether this statement is true or false.

The primary key column may contain NULL values.

- (a) true
- (b) false

7. Indicate whether this statement is true or false.

A foreign key column must contain unique values.

- (a) true
- (b) false

8. Indicate whether this statement is true or false.

A foreign key column may contain NULL values.

- (a) true
- (b) false

9. Indicate whether this statement is true or false.

A view is an alternative method to store data.

- (a) true
- (b) false

10. Indicate whether this statement is true or false.

A stored procedure is only executed when asked for explicitly.

- (a) true
- (b) false

11. Indicate whether this statement is true or false.

A trigger can be used instead of a foreign key to implement referential integrity.

- (a) true
- (b) false

12. Indicate whether this statement is true or false.

A trigger can be used instead of a check constraint.

- (a) true
- (b) false

13. Can the following construction be used in a relational system, if we want to assign a single name (first name and last name) and one or more telephone numbers to a certain person?

person number	name	phone number
1	Wouters Peter	016/549216, 0498/526984
2	Peeters Jan	0488/965235
3	Janssens Wouter	03/5214963, 0478/625398

- (a) yes
 (b) no

14. Can the following construction be used in a relational system, if we want to assign a single name (first name and last name) and one or more telephone numbers to a certain person?

person number	name	phone number
1	Wouters Peter	016/549216
1	Wouters Peter	0498/526984
3	Janssens Wouter	03/5214963
3	Janssens Wouter	0478/625398
2	Peeters Jan	0488/965235

- (a) yes
 (b) no

15. Can the following construction be used in a relational system, if we want to assign a single name (first name and last name) and one or more telephone numbers to a certain person?

person number	name	phone number
1	Wouters	016/549216
1	Peter	016/549216
2	Peeters	0488/965235
2	Jan	0488/965235
3	Janssens	03/5214963
3	Wouter	03/5214963

- (a) yes
 (b) no

16. Can the following construction be used in a relational system, if we want to assign a single name (first name and last name) and one or more telephone numbers to a certain person?

person number	phone number
1	016/549216
1	0498/526984
2	0488/965235
3	03/5214963
3	0478/625398

person number	name
1	Wouters Peter
2	Peeters Jan
3	Janssens Wouter

- (a) yes
- (b) no
17. Can the following construction be used in a relational system, if we want to assign a single name (first name and last name) and one or more telephone numbers to a certain person?

PK	Foreign Key	
ID	person number	phone number
1	2	0488/965235
2	1	016/549216
3	3	03/5214963
4	1	0498/526984
5	3	0478/625398

Primary Key	
person number	name
1	Wouters Peter
2	Peeters Jan
3	Janssens Wouter

- (a) yes
- (b) no
18. Can the following construction be used in a relational system?
The domain of the "language" column is {N,F,E}.

person number	name	language
1	Wouters Peter	N
2	Peeters Jan	N
3	Janssens Wouter	F

- (a) yes
- (b) no

19. Can the following construction be used in a relational system?
The delete rule for both primary keys is 'on delete cascade'.

PK		Foreign Key
ID	person number	phone number
1	1	016/549216
2	1	0498/526984
3	2	0488/965235
4	3	03/5214963
5	3	0478/625398

Primary Key	
person number	name
1	Wouters Peter
2	Peeters Jan
3	Janssens Wouter

- (a) yes
- (b) no
20. Can the following construction be used in a relational system?
The domain of the "married" column is {Y,N}.

person number	name	married
1	Wouters Peter	N
2	Peeters Jan	NULL
3	Janssens Wouter	Y

- (a) yes
- (b) no

EVALUATION.

Here are the correct answers to all questions:

1. a
2. a
3. b
4. a
5. a
6. b
7. b
8. a
9. b
10. a
11. a
12. a
13. b
14. a
15. b
16. a
17. a
18. a
19. a
20. a

Give yourself 1 point for each correctly answered question.

If you have less than 14 correct answers, we advise you to follow the [RDBMS concepts](#) course.

If you have more than 17 correct answers, it is not useful anymore to follow this course. You can immediately register for other database courses ([SQL fundamentals](#), [DB2](#), [Oracle](#), [MySQL](#) or [SQLServer](#) ...). You may check your SQL background first with our [self-test SQL](#) and our [self-test SQL workshop](#).

If your score is between 14 and 17, you have already some background knowledge on relational databases, but you will certainly still learn a lot in the [RDBMS concepts](#) course.