Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3

(Answer all questions in this section)

46. What do you call the entity created when you resolve a M:M relationship? (1/1) Points

- Inclusion entity
- **Intersection entity (*)**
- M:M entity
- Recursive entity

✔Correct

47. A non-transferable relationship means the detail _____ be changed to point to a new master. (1/1) Points

- can
- **can not (*)**
- sometimes can

✔Correct

48. Intersection Entities often have the relationships participating in the UID, so the relationships are often barred. True or False? (1/1) Points

- **True (*)**
- False

✔Correct

49. You can only create relationships to a Supertype, not to a Subtype. True or False? (1/1) Points

- True
- **False (*)**

✔Correct

50. A recursive relationship has cardinality of _____. (1/1) Points

- **Cannot be determined without more information. (*)**
- One to One
- Many to Many
- One to Many

✔Correct

Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 3

(Answer all questions in this section)

41. Sources of business rules include all of the following except: (1/1) Points

- ○ Procedures
- ○ Standards
- ○ Operational manuals
- ● Word of mouth (*)

✔Correct

42. Modeling historical data is optional. True or False? (1/1) Points

- ● True (*)
- ○ False

✔Correct

43. An entity name is converted to a table name by making it plural. (1/1) Points

- ● True (*)
- ○ False

✔Correct

44. When mapping a barred relationship a primary key and foreign key can be the same field. (1/1) Points

- ● True (*)
- ○ False

✔Correct

45. Table names can contain all of the following except: (1/1) Points

- ○ Some special characters
- ● Spaces (*)
- ○ Letters
- ○ Numbers

✔Correct

Section 2

(Answer all questions in this section)

(1/1) Points

36. Which of the following are reasons we create conceptual models?

- It facilitates discussion; a picture is worth a thousand words
- It forms important ideal system documentation
- It takes into account government regulations and laws
- It forms a sound basis for physical database design
- (•) All of the above (*)

✔Correct

Section 3

(Answer all questions in this section)

(1/1) Points

37. The Rule of 3rd Normal Form states that No Non-UID attribute can be dependent on another non-UID attribute. True or False?

- (•) True (*)
- ( ) False

✔Correct

(1/1) Points

38. A table is in 1NF if ...
(Choose 2)

(Choose all correct answers)

- [x] There are no duplicate rows (*)
- [x] There is only one data value. (*)
- [ ] The entries in a column are of different type
- [ ] Each row contains different columns

✔Correct

(1/1) Points

39. Until all attributes are single-valued, the database model is said to be:

- ( ) Normalized
- (•) Not Normalized (*)
- ( ) in 2nd Normal Form
- ( ) in 1st Normal Form

✔Correct

(1/1) Points

40. When data is only stored in one place in a database, the database conforms to the rules of _____.

- ( ) Reduction
- ( ) Multiplication
- ( ) Normality
- (•) Normalization (*)

✔Correct

Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2

(Answer all questions in this section)

36. Which of the following are reasons we create conceptual models? (1/1) Points

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- All of the above (*)

✔Correct

Section 3

(Answer all questions in this section)

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- in 1st Normal Form

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- Reduction
- Multiplication

Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2

(Answer all questions in this section)

31. Matrix Diagrams should be developed BEFORE the ERD. True or False? (0/1) Points

- True (*)
- (●) False

✖Incorrect. Refer to Section 2 Lesson 5.

32. Which of the following is NOT an example of cardinality? (1/1) Points

- How many employees can hold one specific job?
- (●) How many types of jobs are there? (*)
- How many jobs can one employee hold?
- All are examples of cardinality.

✔Correct

33. A relationship is transformed from logical to physical model using _____. (1/1) Points

- Composite Keys
- Secondary Keys
- Candidate Keys
- (●) Foreign Keys (*)

✔Correct

34. The Physical Model is derived from the Logical Model. True or False? (1/1) Points

- (●) True (*)
- False

✔Correct

35. A logical model includes : (1/1) Points

- (●) Entities, Attributes, Unique Identifiers and Relationships (*)
- Only Entities and Relationships
- Only Entities, Attributes and Unique Identifiers
- Only Entities, Attributes and Relationships

✔Correct

Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2

(Answer all questions in this section)

26. Entity Boxes are drawn on an ERD using what type of shape? (1/1) Points

- Diamonds
- Rectangles
- **O** Soft Boxes (*)
- Hard Boxes

✔Correct

27. Entities are usually _____. (1/1) Points

- Verbs
- **O** Nouns (*)
- Adjectives
- Adverbs

✔Correct

28. When creating entities in a logical model you must follow these rules: (Choose Two) (1/1) Points

(Choose all correct answers)

- ☐ Exclude Attributes
- ☑ Include Attributes (*)
- ☐ Name them in Plural
- ☑ Name them in Singular (*)

✔Correct

29. In this course, we use the _____ notation for ERD modeling. (1/1) Points

- Bachman
- **O** Barker (*)
- Information Engineering
- None of the above

✔Correct

30. The optionality of a relationship must be either _____ or _____. (1/1) Points

- Bidirectional or a single direction
- Single or Multiple
- One or (One or More)
- **O** Mandatory or Optional (*)

✔Correct

Test: DFo Database Foundations Midterm Exam

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2

(Answer all questions in this section)

21. Capturing all required data is the only goal of entity relationship modeling. (1/1) Points

- True
- False (*)

✔Correct

22. All entities must be given a new artificial UID. True or False? (1/1) Points

- True
- False (*)

✔Correct

23. What is the purpose of a Unique Identifier? (1/1) Points

- Create an entity that is unlike any other entity aside from itself.
- To uniquely determine a table and columns within that table.
- To identify one unique instance of an entity by using one or more attributes and/or relationships. (*)
- To identify a specific row within a table, using one or more columns and/or foreign keys.

✔Correct

24. A Unique Identifier has a NULL value for each instance of the entity for the lifetime of the instance. True or False (1/1) Points

- True
- False (*)

✔Correct

25. Candidate UIDs must be made up of only one attribute. (1/1) Points

- True
- False (*)

✔Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 2

(Answer all questions in this section)

(0/1) Points

16. A _____ is a type of database that stores data in a single table.

- (•) Relational
- ( ) Flat file (*)
- ( ) Network
- ( ) Hierarchical

✖Incorrect. Refer to Section 2 Lesson 1.

(0/1) Points

17. What does single table refer to? (Choose Two)

(Choose all correct answers)

- [x] A type of database storage method where all of the data elements are stored on top of each other.
- [x] A database where all of the data is stored in one large table. (*)
- [ ] A fully-relational database system like Microsoft's SQL Server or Oracle's database systems.
- [ ] Non-relational systems that typically store each table and index in separate files and often do not support the SQL language. (*)

✖Incorrect. Refer to Section 2 Lesson 1.

(1/1) Points

18. ERDish includes the following except:

- ( ) Optionality
- (•) Data Values. (*)
- ( ) Cardinality
- ( ) Relationship Names

✔Correct

(1/1) Points

19. An ERD created using ERDish is a _____ representation of entities and their relationships to each other.

- (•) graphical (*)
- ( ) hierarchical
- ( ) textual
- ( ) technical

✔Correct

(1/1) Points

20. Data models are drawn to show users the actual Data that their new system will contain; only Data listed on the Diagram can be entered into the Database. True or False?

- ( ) True
- (•) False (*)

✔Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1

(Answer all questions in this section)

(1/1) Points

11. The reason or drive for using databases rather than files has been ... (Choose 3)

(Choose all correct answers)

- [x] Availability of data to a diverse set of users (*)
- [ ] Use of blocks
- [x] Reduced redundancy of data (*)
- [x] Integration of data for easier access and modification for complex transactions (*)

✔Correct

(1/1) Points

12. In a _____ database model the data is organized into a tree-like structure and to retrieve data the whole tree needs to be traversed starting from the root node.

- ○ Network
- ○ Relational
- ○ Object Oriented
- ● Hierarchical (*)

✔Correct

(1/1) Points

13. A _____ model describes a database in terms of tables, columns, and joins between tables.

- ● Relational (*)
- ○ Hierarchical
- ○ Network
- ○ Object Oriented

✔Correct

(1/1) Points

14. In the relational database model, each table name must be unique. The column names in the table must be unique too. You can have two different tables that have column names that are the same.

- ● True (*)
- ○ False

✔Correct

(1/1) Points

15. In a hierarchical database model the data is stored as records that are connected to one another through _____.

- ○ primary keys
- ● links (*)
- ○ fields
- ○ databases

✔Correct

Review your answers, feedback, and question scores below. An asterisk (*) indicates a correct answer.

Section 1

(Answer all questions in this section)

(1/1) Points

6. The strategies for learning used in this course include:

- Instructor led training
- Industry recognized certification
- Project driven curriculum
- All of the above (*)

✔Correct

(1/1) Points

7. Once you have learned how to write programs and build systems, you no longer need any input or involvement from any users as you are perfectly capable of delivering the systems that businesses need and want.

- True. Users delay the delivery of a system by changing their minds and adding new requirements.
- True. Users never know what they want anyway, so building systems is best left to the professionals.
- False. Business requirements can and will change. For instance new legal requirements may arise. (*)
- True. The only requirement for creating a perfect system is a perfect programmer.

✔Correct

(1/1) Points

8. All Business Rules can be modeled.

- True
- False (*)

✔Correct

(1/1) Points

9. Documenting Business Requirements helps developers control the scope of the system and prevents users from claiming that the new system does not meet their business requirements. True or False?

- True (*)
- False

✔Correct

(1/1) Points

10. Business _____ are used to understand business processes, and the nature, role, and scope of the data.

- Rules (*)
- Goals
- Mission Statements
- Processes

✔Correct

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Test: DFo Database Foundations Midterm Exam

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Section 1

(Answer all questions in this section)

1. A DBMS comprises of the following elements: (Choose 3) (1/1) Points

(Choose all correct answers)

- [ ] Client
- [x] Data Dictionary (*)
- [x] Memory and Storage Management (*)
- [x] Query language (*)

✔Correct

2. Select the business or industry that would not have a need for a database. (1/1) Points

- ○ Banking
- ○ Retail
- ○ Scientific Research
- ● All these businesses could benefit from using a database. (*)

✔Correct

3. Information is the result of combining, comparing and performing calculations on data. (1/1) Points

- ● True (*)
- ○ False

✔Correct

4. Which transformation in computing allows for storage and delivery of applications and data over the internet? (1/1) Points

- ● Cloud Computing (*)
- ○ Grid Computing
- ○ Mainframe computing
- ○ Desktop computing

✔Correct

5. The technical software requirements for this course include all of the following except: (1/1) Points

- ○ Oracle SQL Developer Data Modeler
- ● Microsoft Access (*)
- ○ Oracle APEX application
- ○ All are requirements.

✔Correct