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| **True / False** |

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| 1. Redundancy refers to the duplication of data, or the storing of the same data in more than one place.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | True / False | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Remember | |

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| 2. Redundancy makes changing data more cumbersome and time-consuming.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | True / False | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Understand | |

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| 3. An entity is a person, place, event, item, or other transaction for which you want to store and process data.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | True | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Selecting a Database Solution | | *QUESTION TYPE:* | True / False | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 4. An employee’s last name is an example of an attribute.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Selecting a Database Solution | | *QUESTION TYPE:* | True / False | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 5. An attribute is known as a row in most databases.   |  |  |  | | --- | --- | --- | |  | a. | True | |  | b. | False |  |  |  | | --- | --- | | *ANSWER:* | False | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Selecting a Database Solution | | *QUESTION TYPE:* | True / False | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| **Multiple Choice** |

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| 6. A(n) \_\_\_\_\_ can store information about multiple types of entities and the relationships among the entities.   |  |  |  | | --- | --- | --- | |  | a. | flat file | |  | b. | attribute | |  | c. | relational database | |  | d. | spreadsheet |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Storing Data | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 7. Which of the following is a visual way to represent and analyze a database?   |  |  |  | | --- | --- | --- | |  | a. | entity-relationship (E-R) diagram | |  | b. | algorithm | |  | c. | encryption diagram | |  | d. | metadata |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Storing Data | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 8. What do two tables use to link related records from each table?   |  |  |  | | --- | --- | --- | |  | a. | a form | |  | b. | an orphan record | |  | c. | a unique value | |  | d. | a common field |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Storing Data | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 9. In an organization, who is usually responsible for improving databases to provide efficient and effective access to their information?   |  |  |  | | --- | --- | --- | |  | a. | business owner | |  | b. | database administrator (DBA) | |  | c. | database supporter (DBS) | |  | d. | data-entry clerks |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Remember | |

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| 10. Microsoft Access is well-suited to which of the following cases?   |  |  |  | | --- | --- | --- | |  | a. | A few trusted users work with the database at the same time. | |  | b. | The database is very large, containing dozens of tables and thousands of records. | |  | c. | Many users work with the database in separate geographical locations. | |  | d. | The database has strict security requirements because it is available on the Internet. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Understand | |

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| 11. Which of the following is a screen object used to maintain and view data from a database?   |  |  |  | | --- | --- | --- | |  | a. | spreadsheet | |  | b. | macro | |  | c. | report | |  | d. | form |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 12. Which of the following is a drawback of flat files?   |  |  |  | | --- | --- | --- | |  | a. | Several users can access the same information at the same time. | |  | b. | Flat files ensure that users enter data in a consistent format. | |  | c. | Data is organized to meet all integrity constraints. | |  | d. | Data partitioned into several separate files can be difficult to summarize. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Understand | |

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| 13. In the Sports Physical Therapy database, you determine the description of the therapy a patient is receiving by finding the TherapyCode for the patient in the Session table, and then \_\_\_\_\_.   |  |  |  | | --- | --- | --- | |  | a. | looking up the TherapyCode in the Patient table | |  | b. | looking up the TherapyCode in the Therapies table | |  | c. | looking up the SessionNum in the Session table | |  | d. | looking up the TherapyCode in the Therapist table |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 14. A database that enforces \_\_\_\_\_ prevents users from creating orphan records.   |  |  |  | | --- | --- | --- | |  | a. | primary key creation | |  | b. | referential integrity | |  | c. | data redundancy | |  | d. | data security |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Remember | |

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| 15. According to the Bureau of Labor Statistics, what is the job growth outlook for database administrators?   |  |  |  | | --- | --- | --- | |  | a. | faster than average | |  | b. | slower than average | |  | c. | about average | |  | d. | No growth is expected. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Remember | |

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| 16. Which term can be described as the duplication of data and storing data in multiple locations?   |  |  |  | | --- | --- | --- | |  | a. | data independence | |  | b. | redundancy | |  | c. | data integrity | |  | d. | security |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Remember | |

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| 17. What is the term for a collection of data organized in a manner that allows access, retrieval, and use of the data?   |  |  |  | | --- | --- | --- | |  | a. | database | |  | b. | entity | |  | c. | code file | |  | d. | flat file |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Remember | |

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| 18. Which of the following is a reason to store business data in a database rather than a spreadsheet?   |  |  |  | | --- | --- | --- | |  | a. | Spreadsheets have limited text-formatting features. | |  | b. | Spreadsheets cannot be backed up. | |  | c. | Spreadsheets have limited data sharing and security features. | |  | d. | Spreadsheets have strict rules about data consistency. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Understand | |

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| 19. Which of the following is a problem that data redundancy causes?   |  |  |  | | --- | --- | --- | |  | a. | removal of orphan records | |  | b. | increased data independence | |  | c. | increased data errors and inconsistencies | |  | d. | removal of primary key fields |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Understand | |

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| 20. Which of the following tasks is a data analyst likely to perform?   |  |  |  | | --- | --- | --- | |  | a. | apply an algorithm to find sales trends | |  | b. | install software to work with a database | |  | c. | design a new database | |  | d. | maintain the company database |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Understand | |

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| 21. How are entities represented in a relational database?   |  |  |  | | --- | --- | --- | |  | a. | Each entity is stored as a row. | |  | b. | Each entity is stored as an attribute. | |  | c. | Each entity is stored as a table. | |  | d. | Each entity is stored as a column. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Storing Data | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.02 - Define basic database terminology | | *KEYWORDS:* | Bloom’s: Remember | |

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| 22. Which of the following is a popular software stack?   |  |  |  | | --- | --- | --- | |  | a. | SQL Server | |  | b. | Oracle | |  | c. | LAMP | |  | d. | DAMP |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 23. What type of software programs are Access, Oracle, DB2, MySQL, and SQL Server?   |  |  |  | | --- | --- | --- | |  | a. | E-R diagrams | |  | b. | DBAs | |  | c. | data files | |  | d. | DBMSs |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 24. During which phase does a database developer create the entities, attributes, and relationships between the tables of data?   |  |  |  | | --- | --- | --- | |  | a. | data security | |  | b. | database integrity | |  | c. | database design | |  | d. | database selection |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Understand | |

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| 25. Which of the following are screen objects used to maintain, view, and print data from a database?   |  |  |  | | --- | --- | --- | |  | a. | fields | |  | b. | forms | |  | c. | data files | |  | d. | entities |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 26. Which of the following statements is correct?   |  |  |  | | --- | --- | --- | |  | a. | In a flat-file environment, data is partitioned into several disjointed systems, lists, and files. | |  | b. | User data cannot be combined and shared among authorized users. | |  | c. | Database users should each work on their own copy of the database. | |  | d. | Controlling redundancy is easier in a flat file than in a database. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Understand | |

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| 27. Which type of rule prevents the creation of orphan records?   |  |  |  | | --- | --- | --- | |  | a. | redundancy constraint | |  | b. | integrity constraint | |  | c. | conflict requirement | |  | d. | security requirement |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Understand | |

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| 28. Which of the following is a responsibility of a database administrator?   |  |  |  | | --- | --- | --- | |  | a. | improving the efficiency of a database | |  | b. | creating projections of future sales | |  | c. | supervising an organization’s external communications | |  | d. | coordinating marketing presentations |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Remember | |

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| 29. In a large business, who mines a database for information, trends, and insights?   |  |  |  | | --- | --- | --- | |  | a. | data analyst | |  | b. | database administrator | |  | c. | data entry manager | |  | d. | data security expert |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Understand | |

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| 30. In the Pitt Fitness database, which attribute uniquely identifies each class?   |  |  |  | | --- | --- | --- | |  | a. | ClassName | |  | b. | ClassLocation | |  | c. | ClassType | |  | d. | ClassID |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Introduction to the Pitt Fitness Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 31. In the Pitt Fitness database, which of the following attributes belongs in the Customers table?   |  |  |  | | --- | --- | --- | |  | a. | ClassName | |  | b. | ReservationID | |  | c. | BirthDate | |  | d. | InstructorID |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Pitt Fitness Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 32. In the Pitt Fitness database, which table relates classes and instructors?   |  |  |  | | --- | --- | --- | |  | a. | Reservations | |  | b. | Customers | |  | c. | CustomerReservations | |  | d. | ClassInstructors |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Pitt Fitness Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Remember | |

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| 33. In the Sports Physical Therapy database, which table stores the date of an interaction between a patient and a therapist?   |  |  |  | | --- | --- | --- | |  | a. | Patient | |  | b. | Billings | |  | c. | Session | |  | d. | PatientBillings |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 34. In the Sports Physical Therapy database, which attribute uniquely identifies each therapy session?   |  |  |  | | --- | --- | --- | |  | a. | TherapyCode | |  | b. | SessionNum | |  | c. | SessionType | |  | d. | PatientNum |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 35. In the Sports Physical Therapy database, which table determines which therapist provided a service to a patient?   |  |  |  | | --- | --- | --- | |  | a. | Patients | |  | b. | Session | |  | c. | Therapist | |  | d. | Therapies |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Remember | |

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| 36. Which of the following will be an entity in the JC Consulting database?   |  |  |  | | --- | --- | --- | |  | a. | Client name | |  | b. | Estimate | |  | c. | Clients | |  | d. | Project description |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | JC Consulting Company Background | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.01 - Examine JC Consulting (JCC), the company used for many of the examples throughout the text | | *KEYWORDS:* | Bloom’s: Apply | |

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| 37. Which of the following is a popular relational database management system?   |  |  |  | | --- | --- | --- | |  | a. | Apache | |  | b. | SQL Server | |  | c. | Rails | |  | d. | PHP |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 38. In the Sports Physical Therapy database, how can you determine which therapist provided the longest amount of time to complete a particular service?   |  |  |  | | --- | --- | --- | |  | a. | In the Therapies table, find the highest value in the UnitOfTime column. | |  | b. | In the Session table, find the highest value in the LengthOfSession column. | |  | c. | In the Therapies table, find the highest value in the TherapyCode column. | |  | d. | In the Session table, find the highest value in the SessionNum column. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 39. In the Sports Physical Therapy database, how can you determine the number of sessions completed by therapist Steven Wilder?   |  |  |  | | --- | --- | --- | |  | a. | In the Therapist table, count the number of values in the SessionNum column for Steven Wilder. | |  | b. | In the Session table, count the number of times Steven Wilder appears in the TherapistName column. | |  | c. | In the Therapies table, count the number of values in the SessionTherapist column for Steven Wilder. | |  | d. | In the Therapist table, find the TherapistID for Steven Wilder, and then count the number of times his TherapistID appears in the Session table. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 40. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ describes the large volume of data produced by every digital process, system, sensor, mobile device, and even social media exchange.   |  |  |  | | --- | --- | --- | |  | a. | Metadata | |  | b. | Database management system | |  | c. | Software stack | |  | d. | Big data |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Easy | | *REFERENCES:* | Big Data | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Remember | |

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| 41. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a set of rules, calculations, and assumptions used to solve a problem.   |  |  |  | | --- | --- | --- | |  | a. | attribute | |  | b. | algorithm | |  | c. | integrity constraint | |  | d. | form |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Remember | |

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| 42. In the Pitt Fitness database, which of the following is an attribute in the Instructors entity?   |  |  |  | | --- | --- | --- | |  | a. | InstructorRoom | |  | b. | InstructorDescription | |  | c. | InstructorCity | |  | d. | InstructorFee |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Review Pitt Fitness, a company used in a case that appears at the end of each module | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |

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| 43. In the Pitt Fitness database, what can you learn by examining the ClassInstructors data?   |  |  |  | | --- | --- | --- | |  | a. | Some classes use more than one instructor. | |  | b. | Each class has only one instructor. | |  | c. | Each instructor teaches only one class. | |  | d. | All the instructors live in Pittsburgh. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Review Pitt Fitness, a company used in a case that appears at the end of each module | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Apply | |

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| 44. In the Pitt Fitness database, how can you determine the number of classes offered on Tuesday?   |  |  |  | | --- | --- | --- | |  | a. | In the Classes table, count the occurrences of Tuesday in the Time column. | |  | b. | In the ClassInstructors table, count the occurrences of Tuesday in the DayOfWeek column. | |  | c. | In the Classes table, count the entries in the Tuesday column. | |  | d. | In the Classes table, count the occurrences of Tuesday in the Day column. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Review Pitt Fitness, a company used in a case that appears at the end of each module | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Apply | |

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| 45. In the Pitt Fitness database, you can determine which instructor is assigned a particular class by looking in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ table.   |  |  |  | | --- | --- | --- | |  | a. | ClassInstructors | |  | b. | Classes | |  | c. | Reservations | |  | d. | Instructors |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Review Pitt Fitness, a company used in a case that appears at the end of each module | | *QUESTION TYPE:* | Multiple Choice | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.06 - Review Pitt Fitness, a company used in a case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Apply | |

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| 46. List nine advantages of a properly designed relational database.   |  |  |  | | --- | --- | --- | | *ANSWER:* | |  | | --- | | Better information is provided. Data and information are shared. Multiple business information requirements are addressed. Data redundancy is minimized. Data consistency is applied. Referential integrity is enforced. Security is increased. Productivity is increased. Data is freed from individual applications. |   ​ | | *POINTS:* | 1 | | *RUBRIC:* | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Criteria** |  | **10** |  | **0** | | **Pts** | **Your Score** | | The answer includes nine advantages, including the following or similar advantages: |  | 1 |  |  | | Better information is provided. |  | 1 |  |  | | Data and information are shared. |  | 1 |  |  | | Multiple business information requirements are addressed. |  | 1 |  |  | | Data redundancy is minimized. |  | 1 |  |  | | Data consistency is applied. |  | 1 |  |  | | Referential integrity is enforced. |  | 1 |  |  | | Security is increased. |  | 1 |  |  | | Productivity is increased. |  | 1 |  |  | | Data is freed from individual applications. |  | 1 |  |  | | | *DIFFICULTY:* | Difficult | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Essay | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Understand | |

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| 47. Explain when Access is an appropriate choice as a DBMS and when an enterprise-level DBMS system would be more appropriate.   |  |  | | --- | --- | | *ANSWER:* | Access is an appropriate choice as a DBMS when only a handful of trusted users are simultaneously using the database and they are all located in the same building. Choose an enterprise-level DBMS such as Oracle when you have many users and a large amount of data, you require sophisticated security and application development features, and you want to use the DBMS across wide area intranets or the Internet. | | *POINTS:* | 1 | | *RUBRIC:* | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Criteria** |  | **10** |  | **0** | | **Pts** | **Your Score** | | Access is an appropriate choice as a DBMS when only a handful of trusted users are simultaneously using the database. |  | 2 |  |  | | Access is an appropriate choice when all users are all located in the same building. |  | 2 |  |  | | An enterprise-level DBMS is more appropriate than Access when the database has many users and a very large amount of data. |  | 2 |  |  | | An enterprise-level DBMS is more appropriate when the organization requires sophisticated security and application development features. |  | 2 |  |  | | An enterprise-level DBMS is more appropriate when the organization wants to use the DBMS across wide area intranets or the Internet. |  | 2 |  |  | | | *DIFFICULTY:* | Difficult | | *REFERENCES:* | Identifying Database Management Systems | | *QUESTION TYPE:* | Essay | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.03 - Describe database management systems (DBMSs) | | *KEYWORDS:* | Bloom’s: Remember | |

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| 48. Discuss why using a relational DBMS provides better information than data stored in multiple flat files.   |  |  | | --- | --- | | *ANSWER:* | A fundamental goal of a DBMS is to turn data (recorded facts) into information (the knowledge gained by processing those facts). A flat file partitions data into several disjointed systems, lists, and files. Any request for information that involves accessing data from more than one of these areas can be difficult to fulfill, especially summarized data that helps confirm assumptions, analyze trends, and spot exceptions. In contrast, a DBMS stores data in a single file and uses related tables to make information easy to access and retrieve. | | *POINTS:* | 1 | | *RUBRIC:* | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Criteria** |  | **15** |  | **0** | | **Pts** | **Your Score** | | The answer explains that a flat file partitions data into several disjointed systems, lists, and files. |  | 5 |  |  | | The answer also explains that with a flat file, it is difficult to fulfill requests for information that involve accessing data from more than one file, especially summarized data. |  | 5 |  |  | | In contrast, a relational DBMS stores data in a single system that uses related tables to make information easy to access and retrieve. |  | 5 |  |  | | | *DIFFICULTY:* | Difficult | | *REFERENCES:* | Advantages of a Properly Designed Relational Database | | *QUESTION TYPE:* | Essay | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.04 - Explain the advantages and key factors for a healthy relational database system | | *KEYWORDS:* | Bloom’s: Understand | |

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| 49. Explain the key differences between the job description and responsibilities of a database administrator and a data analyst.   |  |  | | --- | --- | | *ANSWER:* | A database administrator manages database management systems and software. Responsibilities include installing, maintaining, and testing database hardware and software as well as designing and improving the database to provide efficient and effective access to the information. A data analyst uses tools and algorithms to mine a database for answers, information, trends, and insights. Responsibilities include analyzing data to find answers to business questions. | | *POINTS:* | 1 | | *RUBRIC:* | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Criteria** |  | **10** |  | **0** | | **Pts** | **Your Score** | | A database administrator (DBA) is defined as someone who manages database management systems and software. |  | 2 |  |  | | Responsibilities of a DBA are identified as installing, maintaining, and testing database hardware and software. |  | 2 |  |  | | Other DBA responsibilities include designing and improving the database to provide efficient and effective access to the information. |  | 2 |  |  | | A data analyst is defined as someone who uses tools and algorithms to mine a database for answers, information, trends, and insights. |  | 2 |  |  | | Responsibilities of a data analyst are identified as analyzing data to find answers to business questions. |  | 2 |  |  | | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Preparing for a Career in Database Administration | | *QUESTION TYPE:* | Essay | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.05 - Prepare for a career in database administration | | *KEYWORDS:* | Bloom’s: Remember | |

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| 50. Describe the types of big data Sports Physical Therapy could collect to improve its services and financial performance.   |  |  | | --- | --- | | *ANSWER:* | Sports Physical Therapy could collect blog postings that mention its services or therapists; website analytics to find details about its website usage; photos showing therapists and facilities; and social media posts mentioning the business and its services. | | *POINTS:* | 1 | | *RUBRIC:* | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Criteria** |  | **5** |  | **0** | | **Failure** | **Below Expectations** | | The answer includes at least two types of big data. |  | 2 |  |  | | The answer mentions blog postings, web analytics, photos, social media posts, and other types of unstructured data. |  | 3 |  |  | | | *DIFFICULTY:* | Moderate | | *REFERENCES:* | Introduction to the Sports Physical Therapy Database Case | | *QUESTION TYPE:* | Essay | | *LEARNING OBJECTIVES:* | CDBM.PRAT.21.01.07 - Review Sports Physical Therapy, a company used in another case that appears at the end of each module | | *KEYWORDS:* | Bloom’s: Understand | |