

Chapter 3 Data and Knowledge Management

1) Databases can be billions or trillions of bytes in size. These quantities are called:

- A) kilobytes and gigabytes.
- B) terabytes and megabytes.
- C) gigabytes and terabytes.
- D) megabytes and trillabytes.

Answer: C

Page Ref: 74

Skill: R

2) Difficulties with _____ contributed to the massive cost overruns with the Canadian Firearms Centre's gun registry.

- A) database development and administration
- B) centralizing the database
- C) find qualified IS people to head up the project
- D) difficulty in accessing current information

Answer: A

Page Ref: 76

Skill: A

3) Which of the following is NOT related to the concept of databases?

- A) Paying employees.
- B) Tracking book sales.
- C) Setting salaries for employees.
- D) Writing a term paper.

Answer: D

Page Ref: 76

Skill: A

4) A(n) _____ is a collection of related data organized in a way to facilitate data searches.

- A) record
- B) SQL
- C) database
- D) DBA

Answer: C

Page Ref: 76

Skill: A

5) Database management systems enable organizations to do all of the following EXCEPT:

- A) retrieve.
- B) analyze.
- C) backing up.
- D) store.

Answer: C

Page Ref: 76

Skill: A

- 6) A database management system:
- A) graphically displays relationships among entities.
 - B) is primarily a report generation tool.
 - C) is used to develop interactive Web pages.
 - D) creates, stores, organizes, and retrieves data from a database.

Answer: D

Page Ref: 77

Skill: A

- 7) In the DBMS, the individual database is a(n):
- A) collection of related attributes about entities.
 - B) a text file.
 - C) a set of attributes.
 - D) a set of records.

Answer: A

Page Ref: 77

Skill: A

- 8) A popular personal computer DBMS is:
- A) PowerPoint.
 - B) Microsoft Access.
 - C) PageMaker Pro.
 - D) Netscape Communicator.

Answer: B

Page Ref: 77

Skill: R

- 9) A(n) _____ is a software application which one uses to create, store, organize, and retrieve data from a single database or multiple databases.
- A) query by example
 - B) OLAP
 - C) database management system
 - D) database administrator

Answer: C

Page Ref: 77

Skill: R

- 10) When considering data in a database entity, each row is a:
- A) template.
 - B) record.
 - C) data dictionary.
 - D) file.

Answer: B

Page Ref: 77

Skill: R

11) Another term for an entity is a:

- A) report.
- B) query.
- C) table.
- D) data.

Answer: C

Page Ref: 77

Skill: R

12) Entities are comprised of rows and columns. Each column is a(n):

- A) attribute.
- B) table.
- C) record.
- D) DBMS.

Answer: A

Page Ref: 77

Skill: R

13) DBMS interact with data in using the following terminology EXCEPT:

- A) tables.
- B) entities.
- C) files.
- D) cells.

Answer: D

Page Ref: 77

Skill: A

14) How many entities can a database have?

- A) Two
- B) One
- C) None
- D) Many

Answer: D

Page Ref: 77

Skill: R

15) Advantages of a database approach to information management include the following EXCEPT:

- A) it is easier to enforce standards.
- B) combining data with the programming code.
- C) it is easier to control and deploy data access.
- D) enhanced data quality.

Answer: B

Page Ref: 77

Skill: A

16) Advantages of a database approach to information management EXCLUDES:

- A) conversion costs.
- B) reduced program maintenance.
- C) minimal data redundancy.
- D) improved data accessibility.

Answer: A

Page Ref: 78

Skill: A

17) Which of the following is NOT an advantage to a database management system?

- A) Reduced data consistency
- B) Reduced data redundancy
- C) Improved data quality
- D) Increased productivity of application development

Answer: A

Page Ref: 78

Skill: A

18) Who is responsible for the management and development of the organization's database?

- A) DFO
- B) CEO
- C) DBA
- D) CIO

Answer: C

Page Ref: 78

Skill: R

19) The person responsible for designating who can look at a database and who is authorized to make changes is the:

- A) database administrator.
- B) chief information officer.
- C) security officer.
- D) project leader.

Answer: A

Page Ref: 78

Skill: R

20) Which of the following would not be classified as a cost or risk associated with database management?

- A) Installation costs
- B) New, specialized personnel
- C) Reduced program maintenance
- D) Conversion costs

Answer: C

Page Ref: 78

Skill: A

21) All of the following are true about costs or risks associated with database management EXCEPT:

- A) increased database complexity.
- B) organizational conflicts are reduced.
- C) higher up-front costs associated with installation.
- D) additional employees and expenses.

Answer: B

Page Ref: 78

Skill: A

22) To ensure proper security features in a database, the DBA should:

- A) coordinate with organizational managers.
- B) coordinate with the CEO.
- C) coordinate with users.
- D) work alone.

Answer: A

Page Ref: 78

Skill: A

23) GUI stands for:

- A) general unified interface.
- B) graphic underlying infrastructure.
- C) generic user information.
- D) graphical user interface.

Answer: D

Page Ref: 79

Skill: R

24) What is a form?

- A) A completed SQL program.
- B) The process of shaping and designing a database.
- C) A printed listing of results from a database query.
- D) A graphical user interface with some blanks where the user can enter information or make choices.

Answer: D

Page Ref: 79

Skill: R

25) A(n) _____ is a graphical user interface with some blanks (text boxes) where the user can enter information or make choices, each of which represents an attribute (or field) within a database record.

- A) GUI
- B) entity
- C) form
- D) QBE

Answer: C

Page Ref: 79

Skill: R

26) The process of retrieving data from a database is called:

- A) a removal.
- B) filtration.
- C) an extraction.
- D) a query.

Answer: D

Page Ref: 79

Skill: R

27) A _____ is the most common language used to interface with databases.

- A) query interface language
- B) standard query language
- C) sample query language
- D) structured query language

Answer: D

Page Ref: 79-80

Skill: R

28) Which of the following is a computer language?

- A) QBE
- B) SQL
- C) DBA
- D) GUI

Answer: B

Page Ref: 79

Skill: R

29) Which of the following enables us to fill out a grid or template in order to extract information from a database?

- A) SQL
- B) GUI
- C) DBA
- D) QBE

Answer: D

Page Ref: 80

Skill: R

30) Query by example:

- A) generates print outs of customized database reports.
- B) graphically displays relationships among entities.
- C) is a technique using a template to select the attributes and criteria for extracting information from a database.
- D) is a language for manipulating the contents of a database.

Answer: C

Page Ref: 80

Skill: A

31) Many DBMS packages such as Microsoft Access have a simple way of interfacing with the databases using a concept called:

- A) QBC.
- B) QCC.
- C) QBE.
- D) QRC.

Answer: C

Page Ref: 80

Skill: A

32) A(n) _____ is a compilation of data from the database organized and produced in printed format.

- A) entity
- B) form
- C) report
- D) table

Answer: C

Page Ref: 80

Skill: R

33) A(n) _____ is software that is used to retrieve data from a database and the results are manipulated (aggregated, transformed, and grouped) into a nicely formatted display.

- A) entity formatter
- B) report generator
- C) database designer
- D) query

Answer: B

Page Ref: 80

Skill: R

34) Databases do one no good if they are not organized. The process of organizing and structuring databases efficiently is called:

- A) infrastructure management.
- B) systems architecture.
- C) database design.
- D) data implementation.

Answer: C

Page Ref: 81

Skill: A

35) A(n) _____ is a map or diagram that represents entities and their relationships.

- A) table
- B) data model
- C) entity mapper
- D) report

Answer: B

Page Ref: 81

Skill: R

36) A unique identifier for linking entities together is a:

- A) master key.
- B) link list.
- C) primary key.
- D) merge link.

Answer: C

Page Ref: 82

Skill: A

37) Which of the following would make a bad primary key?

- A) Student identification number (where numbers are unique)
- B) Social insurance number
- C) Combination of last name and date of birth
- D) Driver's license number

Answer: C

Page Ref: 82

Skill: A

38) A database key comprised of two or more attributes is called a(n):

- A) conjoined key.
- B) combination lock.
- C) duplicate key.
- D) combination primary key.

Answer: D

Page Ref: 82

Skill: R

39) A database key not used as a primary key but used to identify records in a table that share a common value is called a(n):

- A) secondary key.
- B) dual key.
- C) duplicate key.
- D) tertiary key.

Answer: A

Page Ref: 82

Skill: R

40) One-to-one, one-to-many, and many-to-many are descriptions of "parent-child" database relationships called:

- A) combinations.
- B) associations.
- C) constructions.
- D) linkages.

Answer: B

Page Ref: 83

Skill: R

- 41) A(n) _____ refers to an attribute that appears as a nonprimary key attribute in one entity and as a primary key attribute in another entity.
- A) secondary key
 - B) merge key
 - C) foreign key
 - D) master key

Answer: C

Page Ref: 83

Skill: A

- 42) The database relationship example of each player participating in games and each game having many players is an example of what type of relationship?
- A) One-to-one
 - B) Many-to-many
 - C) One-to-many
 - D) Object-store

Answer: B

Page Ref: 84

Skill: A

- 43) By placing a key from one entity in the table of another entity we are creating inevitable but necessary:
- A) overlapping.
 - B) redundancy.
 - C) database conflicts.
 - D) incompatibility.

Answer: B

Page Ref: 84

Skill: A

- 44) Canadian Customs Revenue Agency, Citizens and Immigration Canada, and the United States Bureau of Customs and Border Protection are using a program called NEXUS to:
- A) check for the transportation of illegal firearms.
 - B) allow regular border-crossers express entry through customs checkpoints.
 - C) check for illegal immigrants entering the country.
 - D) check for illegal drugs cross over the border.

Answer: B

Page Ref: 90

Skill: R

- 45) A diagramming technique for designing databases which shows associations between entities and where each relationship can be labeled on the diagram is called:
- A) a flow chart.
 - B) a database model.
 - C) an entity relationship diagram.
 - D) a structure chart.

Answer: C

Page Ref: 84

Skill: R

46) Which is the most common DBMS model?

- A) Network
- B) Hierarchical
- C) Object oriented
- D) Relational

Answer: D

Page Ref: 85

Skill: R

47) What technique makes complex databases more efficient and more easily handled by the DBMS?

- A) word processing
- B) entity management
- C) data definition
- D) normalization

Answer: D

Page Ref: 86

Skill: A

48) The elimination of data redundancy is a major goal and benefit of:

- A) normalization.
- B) entities.
- C) queries.
- D) a data dictionary.

Answer: A

Page Ref: 86

Skill: A

49) A major goal and benefit of using data normalization is:

- A) normalization eliminates the need for queries.
- B) faster database queries.
- C) elimination of data redundancy.
- D) SQL works best with normalization.

Answer: C

Page Ref: 86

Skill: A

50) _____ is the term used to identify whether a field is numeric, text, a date or time value, etc.

- A) Data type
- B) Data value
- C) Data reference
- D) Data category

Answer: A

Page Ref: 86

Skill: R

- 51) Which of the following is a collection of information that describes data types, uses, storage requirements, and rules that effect data?
- A) Data mart
 - B) Data dictionary
 - C) Data warehouse
 - D) Data mine

Answer: B

Page Ref: 86

Skill: A

- 52) _____ are standards governing the updating of data, including who has authority to view and update data, acceptable range of data values, and how the data are to be updated.

- A) Protocols
- B) Computer programs
- C) ANSI standards
- D) Business rules

Answer: D

Page Ref: 86

Skill: R

- 53) _____ is a method of analyzing data used by companies to sort and analyze information to better understand their customers, products, markets, or any other phase of their business.

- A) OODB
- B) Data warehousing
- C) Data mining
- D) Business rules

Answer: C

Page Ref: 88

Skill: R

- 54) _____ is a method used by companies to improve their business by analyzing data for business trends in a way that allows the user to drill down from summary data to more detailed data.

- A) Data surfing
- B) Query by example
- C) ERD
- D) Data mining

Answer: D

Page Ref: 88

Skill: R

- 55) _____, a big part of interactive e-commerce on the Internet, refers to immediate automated responses to the requests of users.

- A) Normalization
- B) Online transaction processing
- C) Online analytical processing
- D) Entity relationship diagramming

Answer: B

Page Ref: 89

Skill: R

56) Graphical software tools that provide complex analysis of data stored in a "real-time" database are referred to as:

- A) CASE.
- B) Java.
- C) OLAP.
- D) XHTML.

Answer: C

Page Ref: 89

Skill: A

57) Cultural issues can affect database management. The European Union Data protection Directive:

- A) tracks illegal immigrants trying to enter Europe.
- B) limits how personal data may be used in Europe.
- C) keeps an inventory of European cultural treasures (art, music, literature, etc.).
- D) keep track of potential terrorist suspects in Europe.

Answer: B

Page Ref: 94

Skill: R

58) When merging transaction and analytical processing a problem occurs. Real-time analytical processing diminishes the performance of transaction processing. What is the solution to this problem that many companies use?

- A) Normalization of databases.
- B) Only allow transaction processing during off-peak hours.
- C) Replicate all transactions on a second database server and run analytical processing off of the second server.
- D) Pause transaction processing while analytical processing is occurring.

Answer: C

Page Ref: 92

Skill: A

59) _____ are systems used to interact with customers and run a business in real time.

- A) Informational systems
- B) Office automation
- C) Structured query systems
- D) Operational systems

Answer: D

Page Ref: 92

Skill: A

60) _____ are systems designed to support decision making based on point-in-time data or historical data.

- A) Operational systems
- B) Structured query systems
- C) Office automation
- D) Informational systems

Answer: D

Page Ref: 92

Skill: A

- 61) Organizations such as Wal-Mart, The Bay, and Sears have built _____, which integrate multiple large databases and other information sources into a single repository.
- A) data malls
 - B) data marts
 - C) data warehouses
 - D) data mines

Answer: C

Page Ref: 92

Skill: A

- 62) A single repository of database information integrated from multiple large databases and other information sources is called a(n):
- A) informational system.
 - B) data supermart.
 - C) data warehouse.
 - D) data mart.

Answer: C

Page Ref: 92

Skill: R

- 63) A _____ is a data warehouse that is limited in scope. It contains selected information of the company's business, for example, finance data, inventory data, or personnel data.
- A) data model
 - B) query
 - C) report
 - D) data mart

Answer: A

Page Ref: 93

Skill: R

- 64) 3L Filters instituted a web-based knowledge management system that allowed non-technical staff to provide engineering drawings without assistance. This allowed them to increase revenue over the past two years by:
- A) 28%
 - B) 38%
 - C) 58%
 - D) 48%

Answer: A

Page Ref: 75

Skill: R

- 65) FriendFinder uses DBMS software from:
- A) Sybase
 - B) Microsoft
 - C) Oracle
 - D) MySQL

Answer: D

Page Ref: 79

Skill: R

66) The DBMS that FriendFinder uses is:

- A) proprietary
- B) from a large software vendor
- C) rented from an agency
- D) open source

Answer: D

Page Ref: 79

Skill: A

67) The National Pardon Centre was able to increase its prospect inquiries by _____ % by instituting a web-based form application system.

- A) 400
- B) 40
- C) 200
- D) 250

Answer: A

Page Ref: 81

Skill: R

68) Most of the up-and-coming high tech firms in Canada are located in clusters around which cities?

- A) Toronto & Montréal
- B) Ottawa & Toronto
- C) Toronto & Vancouver
- D) Ottawa & Montréal

Answer: B

Page Ref: 83

Skill: R

69) While the major protocol on the internet is TCP/IP, websites make use of _____ to communicate with databases.

- A) User Datagram Protocol
- B) Legacy Program Controls
- C) Structured Query Language
- D) TCP/IP

Answer: A

Page Ref: 88

Skill: A

70) In order to build a physical bookstore to house all of Amazon.com's 2.5 million titles, the store would need to be the size of:

- A) 25 football fields
- B) ten baseball diamonds
- C) five soccer fields
- D) 15 hockey arenas

Answer: A

Page Ref: 88

Skill: R

- 71) Scotiabank has deployed a system using digital pens and digital paper to its salespeople. Data collected are transmitted using _____ to servers over a secure communications link using _____.
- A) Server Upload Protocol (SUP); cell phone
 - B) Internet Protocol (IP); Blackberry
 - C) User Datagram Protocol (DP); cell phone
 - D) Transmission Control Protocol (TCP); Blackberry

Answer: B

Page Ref: 89

Skill: A

- 72) The practice of matching customer's names with email addresses purchased from a third party is called:
- A) e-pending
 - B) e-tailing
 - C) e-correlating
 - D) e-matching

Answer: A

Page Ref: 91

Skill: A

- 73) The practice of matching customer's names with email addresses purchased from a third party is:
- A) illegal in Canada under PIPEDA
 - B) illegal in USA under USDMA
 - C) illegal in both Canada under PIPEDA and US under USDMA
 - D) legal in Canada under PIPEDA but illegal in USA under USDMA

Answer: A

Page Ref: 91

Skill: A

- 74) What spurred the growth of enterprise systems in the 1990s?
- A) database design was restrictive
 - B) database capacity was inadequate to handle growing request volume
 - C) enterprise systems were cutting edge
 - D) multiple database systems and incompatibility

Answer: D

Page Ref: 94

Skill: R

- 75) In Knowledge Management, what term is used to describe all the underlying skills, routines, practices, formulae, etc?
- A) tacit information
 - B) datagrams
 - C) explicit information
 - D) knowledge assets

Answer: D

Page Ref: 95

Skill: A

76) Knowledge resources that can be documented, archived and codified are referred to as:

- A) explicit knowledge assets
- B) tacit knowledge artifacts
- C) explicit information assets
- D) tacit knowledge assets

Answer: A

Page Ref: 95

Skill: R

77) Tacit knowledge assets often reflect as an organization's:

- A) roles and responsibilities
- B) best practices
- C) unrecorded artifacts
- D) explicit knowledge repository

Answer: B

Page Ref: 95

Skill: A

78) _____ is typically not a single technology but is instead a collection of technology-based tools that include communication and information storage and retrieval systems.

- A) office automation
- B) knowledge management
- C) transaction processing
- D) database management

Answer: B

Page Ref: 95

Skill: A

79) Knowledge resources that are located in a person's mind are referred to as:

- A) tacit knowledge assets
- B) explicit information assets
- C) explicit knowledge assets
- D) tacit knowledge artifacts

Answer: A

Page Ref: 95

Skill: R

80) By widely sharing best practices, organizations should realize improvements in:

- A) storage capacity, system feedback and customer satisfaction
- B) wage settlements, union satisfaction and worker productivity
- C) customer service, product development time and streamlined operations
- D) profit margin, return on investment and system response

Answer: A

Page Ref: 95

Skill: R

81) Effective deployment of a knowledge management system first requires:

- A) that all managers instruct their staff to document their procedures
- B) that all employees agree to share their tacit knowledge
- C) that senior management agrees to share its artifactual knowledge
- D) that middle management agrees to share its process wisdom

Answer: B

Page Ref: 96

Skill: A

82) Effective deployment of a knowledge management system requires:

- A) that the knowledge required and the reason it is required be clearly specified
- B) that the information source be available and coded
- C) employees understand the purpose and method of information sharing
- D) that tacit approval be given by senior management

Answer: A

Page Ref: 96

Skill: R

83) One of the important goals of knowledge management is to:

- A) extend the enterprise data management strategy
- B) make locating sources of expertise on organizational 'islands' easier
- C) make the explicit resources of and organization into explicit artifacts
- D) codify procedures and practices

Answer: B

Page Ref: 96

Skill: A

84) Accenture's Pocket Xchange makes use of which set of software tools?

- A) MS SQL Server; Windows XP; MS Excel; Lotus Notes
- B) MS SQL Server; Windows NT; MS Access; Lotus Notes
- C) MS Access; Oracle; MS FrontPage; Lotus Notes
- D) MS Access; Windows 2000; MS Excel; Lotus Notes

Answer: B

Page Ref: 96

Skill: R

85) Some Accenture consultants have reported that the new Pocket Xchange KM system has saved them as much as:

- A) one day a week
- B) two days a month
- C) one day a month
- D) two weeks a year

Answer: A

Page Ref: 96

Skill: R

86) Which system records when customers are buying, what they are buying and maybe even why they are buying what they are buying, using a mobile computing platform?

- A) BuschWARE
- B) MolsonMOBILE
- C) BudNET
- D) CoorsCOMPUTES

Answer: C

Page Ref: 97

Skill: R

87) Knowledge assets are either:

- A) procedural or best practice
- B) explicit or tacit
- C) factual or conceptual
- D) tacit or artifactual

Answer: B

Page Ref: 95

Skill: A

88) _____ create, modify and/or synthesize knowledge.

- A) Database systems
- B) Knowledge systems
- C) Best practices
- D) Knowledge workers

Answer: D

Page Ref: 95

Skill: R

89) Databases were developed primarily _____.

- A) to automate practices in the manufacturing sector
- B) to facilitate the rise of knowledge management systems
- C) to make middle management redundant
- D) to ensure that data can be stored and retrieved accurately and efficiently

Answer: D

Page Ref: 94

Skill: A

90) The 'Do Not Call' database in the US has shown remarkable growth. In its first 5 months of operation, how many Americans registered?

- A) 5 million
- B) 15 million
- C) 35 million
- D) 55 million

Answer: D

Page Ref: 92

Skill: R

91) The Slammer Worm exploited a hole in:

- A) MS SQL Server
- B) MS FrontPage
- C) MS Excel
- D) MS Access

Answer: A

Page Ref: 88

Skill: R

92) Canadians routinely enter the Zip Code '90210' into US websites which do not recognize Canadian Postal Code formats. Such erroneous data could affect the _____ success of the commercial website.

- A) adaptability
- B) success
- C) information sharing
- D) knowledge management

Answer: B

Page Ref: 87

Skill: R

93) An important decision when designing internet database systems is:

- A) throughput storage
- B) transaction speed
- C) read/write speed
- D) turnaround time

Answer: B

Page Ref: 89

Skill: A

94) Online Analytical Processing queries can answer _____ types of questions.

- A) when
- B) where
- C) what-if
- D) what-for

Answer: C

Page Ref: 91

Skill: A

95) It is _____ that Canada will enact legislation similar to the 'Do Not Call' legislation in force in the USA.

- A) not possible
- B) unlikely
- C) not expected
- D) likely

Answer: D

Page Ref: 92

Skill: R

96) A database is a collection of related data organized in a way to facilitate data searches.

Answer: True False

Page Ref: 76

Skill: R

97) Database management systems enable organizations to analyze information easily.

Answer: True False

Page Ref: 76

Skill: A

98) The main purpose of a database management system is to develop interactive Web pages.

Answer: True False

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Skill: A

99) A popular personal computer DBMS is Microsoft Access.

Answer: True False

Page Ref: 77

Skill: R

100) A database administrator is a software application which one uses to create, store, organize, and retrieve data from a single database or multiple databases.

Answer: True False

Page Ref: 77

Skill: R

101) When considering data in a database entity, each row is a record.

Answer: True False

Page Ref: 77

Skill: R

102) Another term for an entity is a report.

Answer: True False

Page Ref: 77

Skill: R

103) Entities are comprised of rows and columns. Each column is a record.

Answer: True False

Page Ref: 77

Skill: R

104) A database can have many entities.

Answer: True False

Page Ref: 77

Skill: R

105) Increased data redundancy is one of the advantages of a database management system.

Answer: True False

Page Ref: 78

Skill: A

106) The DBA is responsible for the management and development of the organizations database.

Answer: True False

Page Ref: 78

Skill: R

- 107) A form is a graphical user interface with some blanks (text boxes, list boxes, option buttons, etc.) where the user enters information or makes choices.
Answer: True False
Page Ref: 79
Skill: R
- 108) The process of retrieving data from a database is called an extraction.
Answer: True False
Page Ref: 80
Skill: R
- 109) Query Interface Language is the most common language used to interface with databases.
Answer: True False
Page Ref: 80
Skill: R
- 110) SQL is a computer language.
Answer: True False
Page Ref: 80
Skill: R
- 111) QBE enables us to fill out a grid or template in order to extract information from a database.
Answer: True False
Page Ref: 80
Skill: A
- 112) Query by example graphically displays relationships among entities.
Answer: True False
Page Ref: 80
Skill: A
- 113) Many DBMS packages such as Microsoft Access have the option of using query by example.
Answer: True False
Page Ref: 80
Skill: R
- 114) A form is a compilation of data from the database organized and produced in printed format.
Answer: True False
Page Ref: 80
Skill: R
- 115) A report generator is software that is used to retrieve data from a database and the results are manipulated into a useful format.
Answer: True False
Page Ref: 80
Skill: R

116) The process of organizing and structuring databases efficiently is called database design.

Answer: True False

Page Ref: 81

Skill: R

117) A table is a map or diagram that represents entities and their relationships.

Answer: True False

Page Ref: 81

Skill: R

118) A unique identifier for linking entities together is a primary key.

Answer: True False

Page Ref: 82

Skill: R

119) A key field created by combining an employees last name and date of birth is a suitable key field.

Answer: True False

Page Ref: 82

Skill: A

120) A database key comprised of two or more attributes is called a duplicate key.

Answer: True False

Page Ref: 82

Skill: R

121) A database key not used as a primary key but used to identify records in a table that share a common value is called a secondary key.

Answer: True False

Page Ref: 82

Skill: R

122) A master key refers to an attribute that appears as a nonprimary key attribute in one entity and as a primary key attribute in another entity.

Answer: True False

Page Ref: 83

Skill: A

123) An entity relationship diagram is a diagramming technique for designing databases which shows associations between entities.

Answer: True False

Page Ref: 84

Skill: R

124) "Data category" is the term used to identify whether a field is numeric, text, a date or time value, etc.

Answer: True False

Page Ref: 86

Skill: R

- 125) A data warehouse is a collection of information that describes data types, uses, storage requirements, and rules that effects data.
Answer: True False
Page Ref: 86
Skill: R
- 126) Business rules are standards governing the updating of data, including who has authority to view and update data, acceptable range of data values, and how the data are to be updated.
Answer: True False
Page Ref: 86
Skill: R
- 127) Data mining is a method used by companies to improve their business by analyzing data for business trends in a way that allows the user to drill down from summary data to more detailed data.
Answer: True False
Page Ref: 88
Skill: R
- 128) OLAP refers to graphical software tools that provide complex analysis of data stored in a database.
Answer: True False
Page Ref: 89
Skill: A
- 129) The purpose of a data warehouse is to put key business information into the hands or more decision makers.
Answer: True False
Page Ref: 93
Skill: A
- 130) The cost to develop a datamart is typically less than \$1 million, while the cost for a data warehouse can exceed \$10 million.
Answer: True False
Page Ref: 94
Skill: R
- 131) Datamarts typically contain tens of gigabytes of data, as opposed to the hundreds of gigabytes in data warehouses.
Answer: True False
Page Ref: 94
Skill: A
- 132) FriendFinder databases handle about 10,000 queries per second.
Answer: True False
Page Ref: 79
Skill: R
- 133) The National Pardon Centre introduced a desktop system to speed applications for travel to the US.
Answer: True False
Page Ref: 81
Skill: R

- 134) Placing the primary key from one entity in the table of another entity creates a bit of necessary redundancy.
Answer: True False
Page Ref: 84
Skill: A
- 135) The possible relationships between entities in a relational database system are: one-to-one; one-to-all; many-to-many.
Answer: True False
Page Ref: 85
Skill: A
- 136) The major protocol on the internet is TCP/IP. When communicating with a database, however, websites use UDP.
Answer: True False
Page Ref: 88
Skill: R
- 137) Scotiabank has introduced a secure application using UDP database access.
Answer: True False
Page Ref: 89
Skill: A
- 138) When building internet systems that use databases, the speed with which the database management system can process transactions is of no consequence.
Answer: True False
Page Ref: 89
Skill: R
- 139) The process of purchasing email addresses from a third party and then associating them with an organization's existing customer list is referred to as e-matching.
Answer: True False
Page Ref: 91
Skill: R
- 140) Canada has introduced legislation similar to the 'Do Not Call' legislation enacted in the US.
Answer: True False
Page Ref: 92
Skill: R
- 141) Knowledge assets include both tacit and explicit knowledge.
Answer: True False
Page Ref: 95
Skill: R
- 142) Explicit knowledge assets include anything that a person explicitly knows.
Answer: True False
Page Ref: 95
Skill: A

- 143) A typical knowledge management system does not include communications tools.
Answer: True False
Page Ref: 95
Skill: R
- 144) Tacit knowledge assets often reflect an organization's best practices.
Answer: True False
Page Ref: 95
Skill: R
- 145) Accenture's Pocket Xchange system uses Microsoft Access, among other technologies.
Answer: True False
Page Ref: 96
Skill: R
- 146) The brewery company that introduced the system to collect and analyse what customers buy, when they buy it, where they buy it and perhaps why they buy was Molson's Brewery.
Answer: True False
Page Ref: 97
Skill: R
- 147) A(n) _____ is a collection of related data organized in a way to facilitate data searches.
Answer: database
Page Ref: 76
Skill: R
- 148) In the DBMS, the individual database is a collection of related _____ about entities.
Answer: attributes (or fields)
Page Ref: 77
Skill: R
- 149) A(n) _____ is a software application that is used to create, store, organize, and retrieve data from a single database or multiple databases.
Answer: database management system
Page Ref: 76
Skill: R
- 150) When considering data in a database entity, each row is a(n) _____.
Answer: record
Page Ref: 76
Skill: R
- 151) Entities are comprised of rows and columns. Each column is a(n) _____.
Answer: attribute
Page Ref: 76
Skill: R

- 152) A(n) _____ is a graphical user interface with some blanks (text boxes, list boxes, options buttons, etc.) where the user can enter information or make choices.
Answer: form
Page Ref: 79
Skill: R
- 153) _____ is a technique where a template is used to select the attributes and criteria to extract information from a database.
Answer: Query by example
Page Ref: 80
Skill: R
- 154) A(n) _____ is software that is used to retrieve data from a database and the results are manipulated (aggregated, transformed, and grouped) into a nicely formatted display.
Answer: report generator
Page Ref: 80
Skill: R
- 155) The process of organizing and structuring databases efficiently is called database _____.
Answer: design
Page Ref: 81
Skill: R
- 156) A(n) _____ is a map or diagram that represents entities and their relationships.
Answer: data model
Page Ref: 81
Skill: R
- 157) A database key not used as a primary key but but is used to identify records in a table that share a common value is called a(n) _____ key.
Answer: secondary
Page Ref: 82
Skill: R
- 158) A(n) _____ refers to an attribute that appears as a nonprimary key attribute in one entity and as a primary key attribute in another entity.
Answer: foreign key
Page Ref: 83
Skill: R
- 159) A diagramming technique called an _____ is commonly used when designing databases, especially when showing associations among entities.
Answer: entity-relationship diagram
Page Ref: 84
Skill: R
- 160) The most common DBMS approach in use today is the _____ model.
Answer: relational database
Page Ref: 85
Skill: R

- 161) _____ is a technique used to make complex databases more efficient and more easily handled by the DBMS.
Answer: Normalization
Page Ref: 86
Skill: R
- 162) Rules included in data dictionaries to prevent illegal or illogical entries from entering the database are referred to as _____.
Answer: business rules.
Page Ref: 86
Skill: R
- 163) _____ is a method used by companies to sort and analyze information to better understand their customers, products, markets, or any other phase of their business for which data has been captured.
Answer: Data mining
Page Ref: 88
Skill: R
- 164) Systems that are used to interact with customers and run a business in real time are called _____ systems.
Answer: operational
Page Ref: 92
Skill: R
- 165) A _____ is a subset of a data warehouse, in which a highly summarized or focused portion of the data warehouse is kept.
Answer: data mart
Page Ref: 93
Skill: R
- 166) FriendFinder databases are from the vendor named _____.
Answer: MySQL
Page Ref: 79
Skill: R
- 167) FriendFinder databases handle about _____ queries per _____.
Answer: 10,000; second
Page Ref: 79
Skill: R
- 168) Most of Canada's up-and-coming high tech companies are located in clusters around the cities of _____ and _____.
Answer: Ottawa; Toronto
Page Ref: 83
Skill: R

169) The internet uses TCP/IP for web requests and email traffic. Databases, however, use the _____ Protocol.

Answer: User Datagram

Page Ref: 88

Skill: R

170) The practice of purchasing email addresses from third-party vendors and then matching them to an organization's customer list is referred to as _____.

Answer: e-pending

Page Ref: 91

Skill: R

171) In Knowledge Management, underlying skills, routines, practices, principles, formulae, methods, heuristics and intuitions, whether tacit or explicit, are referred to as _____.

Answer: knowledge assets

Page Ref: 95

Skill: A

172) _____ knowledge assets refer to anything that can be documented, archived and codified.

Answer: Explicit

Page Ref: 95

Skill: R

173) _____ knowledge assets reflect the processes and procedures that are located in a person's mind on how to effectively perform a particular task.

Answer: Tacit

Page Ref: 95

Skill: R

174) An organization's best practices are often a reflection of _____.

Answer: tacit knowledge

Page Ref: 95

Skill: A

175) Getting employee buy-in, focusing too much on technology and forgetting the goal are all challenges of _____ Systems.

Answer: Knowledge Management

Page Ref: 96

Skill: A

176) Some Accenture consultants have reported time savings of as much as one _____ a _____ from using the Pocket Xchange system.

Answer: day; week

Page Ref: 96

Skill: R

177) Describe the role and responsibilities of a database administrator (DBA).

Answer: The database administrator is responsible for the development and management of the organizations databases. The DBA must work with a number of people including systems analysts, programmers, users, managers, and security personnel. The DBA assists in the design and implementation of the database, the DBA helps to establish policies and procedures, and the DBA assists with ensuring security of the database.

Page Ref: 78-79

Skill: A

178) Describe processes and methods associated with database queries.

Answer: A query is an extraction of data from a database. There are two main methods for generating queries - structured query language (SQL) and query by example (QBE). Structured query language is a programming language in which lines of code are written that represent instructions as to how to retrieve the desired data. QBE uses a form or template (sometimes called a "wizard") that prompts users to specify information needed to define the query. By selecting fields or variables and their corresponding selection criteria, a query is defined by the QBE method.

Page Ref: 79-80

Skill: A

179) Describe different types of keys used in databases.

Answer: To distinguish records correctly in a database management system (DBMS) each record must be uniquely identifiable. Therefore, each record must have a unique identifier or key field. A primary key is the name for this unique identifier. The primary key can be a combination of two or more attributes, in which case it's called a combination primary key. Secondary keys are those nonprimary key fields that are used to identify one or more records within a table that share a common value.

Page Ref: 82-83

Skill: A

180) Describe different types of database associations.

Answer: Database relationships are described in terms of "parent" and "child" relationships, such as one-to-one, one-to-many, and many-to-many. For example, an author may have written one book, which is a one-to-one relationship. Or, an author may have written several books, which is a one-to-many relationship. Or, several authors may have co-authored or individually written several books, which is a many-to-many relationship. Data are linked in similar fashion. Tracking and managing these relationships is an important part of database management.

Page Ref: 83-84

Skill: A

181) What is normalization?

Answer: Normalization is a process by which a large entity with redundant data is broken out into several, smaller tables. Thus, normalization is a technique to make complex database more efficient and more easily handled by a database management system (DBMS). Redundant information in a database is a handicap to efficient and accurate storage and reporting of information. To eliminate this redundancy, normalization occurs. The result is more tables, but simpler and more readily understood data is contained therein. Thus, the elimination of data redundancy is a major goal and benefit of using data normalization.

Page Ref: 86

Skill: R

182) What is a data dictionary?

Answer: A data dictionary is a document that keeps track of all the data fields in the organization. Within a data dictionary, a description of each field is listed and what the data type of the field is. The data type could be text, numeric, number of decimal places, valid range of values, whether it's a date or time field, etc. The data dictionary lists whether the field is a key field or not. Business rules associated with the field or variable are listed as well. Additionally, the data dictionary lists which program updates the field and when.

Page Ref: 86

Skill: R

183) What is data mining?

Answer: Data mining is a method used by companies to sort and analyze information to better understand their customers, products, markets, or any other phase of their business for which data has been captured. With data mining tools, you can graphically drill down from summary data to more detailed data, sort or extract data based on certain conditions, and perform a variety of statistical analyses, such as trend analysis, correlation analysis, forecasting, and analysis of variance.

Page Ref: 88

Skill: R

184) What is online analytical processing?

Answer: Online analytical processing (or OLAP) refers to graphical software tools that provide complex analysis of data stored in a database. The main component of the OLAP system is the OLAP server, which understands how data is organized in the database and provides analysis tools for analyzing the data. OLAP tools enable users to analyze different aspects of data, beyond summary and data aggregations provided by normal queries. Numerous statistical analyses and trend analyses are available in a manner that allows the user to "drill down" into increasingly deeper levels of data consolidation. The goal of OLAP is to be able to ask "what if" or "why" questions.

Page Ref: 89

Skill: R

185) What is data warehousing?

Answer: Data warehousing is a process by which multiple large databases are combined and integrated into a single repository. This repository makes it possible to do direct querying, analysis, and processing for comprehensive overviews or summaries of organizational activities or occurrences. Like a physical warehouse, the data warehouse stores internal corporate data and combines it with pertinent external data as well. The purpose of a data warehouse is to put key business information into the hands of more decision makers. Data warehouses are very expensive, running into the millions of dollars. Typically it takes a mainframe computer to effectively run a data warehouse.

Page Ref: 92-93

Skill: R

186) What is a data mart?

Answer: A data mart is a data warehouse that is limited in scope. Examples of data marts include finance data, inventory data, or human resource data. Each data mart represents one aspect of organizational business. It contains selected information such that decision support applications are applied to these selected units as opposed to the organization as a whole. Data marts have been popular among small- to medium-sized businesses and cost far less than a data warehouse.

Page Ref: 91-92

Skill: R

187) List and discuss the benefits and challenges of Knowledge Management Systems.

Answer: Innovation and creativity might be enhanced by the free flow of ideas throughout the organization. By widely sharing best practices, organizations should realize improved customer service, shorter product development cycles and streamlined operations. Enhanced business operations will not only improve overall organizational performance, but will also enhance employee retention rates by recognizing the value of employees' knowledge and rewarding them for sharing it. Challenges include the following: 1) Effective deployment requires that employees agree to share their personal tacit knowledge and to take extra steps to utilize the system for identifying best practices. Thus a culture that rewards widespread participation needs to be in place. 2) A successful deployment exercise must first identify what knowledge is required, why and who is likely to be the source of this knowledge. 'What, Why and Who' are done first. 'How' the system will store and manipulate is left for last. 3) The system must be linked to a specific business objective that has a specific metric for assessing its effectiveness (such as ROI) so that the organization can identify clear costs and benefits from the system. 4) The KMS must be easy to use in terms of BOTH putting knowledge in and getting it back out. Information must be provided in the right volume and must be fresh. The system must therefore be carefully maintained, which is an ongoing task and expense. Table 3.7 lists the following benefits: 1) Enhanced innovation and creativity; Improved customer service, shorter product development and streamlined operations; enhanced employee retention; improved organizational performance. It lists the following challenges: getting employee buy-in; focusing too much on technology; forgetting the goal; dealing with knowledge overload and obsolescence.

Page Ref: 95-96

Skill: A

188) Compare operational with informational systems along the dimensions of: 1) Primary purpose; 2) Type of data required; 3) Primary users; 4) Scope of usage, and; 5) Design goal.

Answer: 1) OS - Run the business on a current basis; IS - Support managerial decision making;
2) OS - Current representation of state of the business; IS - Historical or point-in-time (snapshot);
3) OS - Online customers, clerks, salespersons, administrators; IS - Managers, business analysts, customers (checking status, history)
4) OS - Narrow vs. simple updates and queries; IS - Broad vs. complex queries and analysis
5) OS - Performance; IS - Ease of access and use

Page Ref: 92

Skill: R