**Chapter 10 :** Supporting Decision Making

**True / False Questions**

1. Even information that is outdated, inaccurate, or hard to understand has meaning, usefulness, and value.

True False

2. A new Web-based management tool known as a windshield displays critical information in an easy-to-read graphic format.

True False

3. Most business decision situations are either structured or unstructured.

True False

4. Decision makers at the strategic management level often look to management information systems to provide them with summarized, ad hoc, and unscheduled reports, forecasts, and external intelligence to support their more unstructured planning and policymaking responsibilities.

True False

5. Decision makers at the operational management level often look to decision support systems to provide them with summarized, ad hoc, and unscheduled reports, forecasts, and external intelligence to support their more unstructured planning and policymaking responsibilities.

True False

6. Management information systems provide ad hoc, flexible, and adaptable reports.

True False

7. New information technologies and networked PC versions of DSS software have made decision support available to lower levels of management, non-managerial individuals, and self-directed teams.

True False

8. DSS systems are designed to be ad hoc, quick-response systems that are initiated and controlled by business decision makers.

True False

9. DSS software typically contains built-in analytical modeling routines and also enables you to build your own models.

True False

10. Electronic spreadsheet packages provide some of the same model building offered by more powerful DSS software.

True False

11. Decision support systems were the original type of information system developed to support managerial decision making.

True False

12. Operational databases are maintained by transaction processing systems.

True False

13. Push reporting reduces information overload, instead of overwhelming decision makers with periodic, detailed reports of business activity.

True False

14. The concept of a geographic information system and data visualization dates back to the 1800s.

True False

15. When using DSS software, managers usually request pre-specified information from the application.

True False

16. The main purpose of data mining is to provide decision support to managers and business professionals through a process referred to as information mining.

True False

17. If customers who purchase item A are already likely to purchase item B, then they'll be even more likely to buy item B if it is in a display just outside the aisle that holds item A.

True False

18. According to the textbook case, companies are moving away from IT-centric business intelligence and toward results-focused performance management.

True False

19. Executive information systems are becoming so widely used by non-executives that they are sometimes humorously called "easy information systems."

True False

20. In an executive information system, information is presented in forms tailored to the job requirements of the executives using the system.

True False

21. Portals are designed for use by executives, not the average employee.

True False

22. Enterprise information portals are typically tailored or personalized to the needs of individual business users or groups of users.

True False

23. Enterprise information portals can help avoid excessive surfing by employees across company and Internet websites by making it easier for them to receive or find the information and services they need.

True False

24. The enterprise information portal is a customized, personalized, Web-based interface for corporate extranets.

True False

25. Companies should have clear criteria for determining when cases cannot be addressed through automation and who should deal with the exceptions.

True False

26. Adaptive learning systems can only modify their behaviors based on the information with which they are programmed.

True False

27. An expert system applies reasoning to answer questions, but cannot explain the reasoning process to the user who asked the question.

True False

28. Expert systems fail miserably in solving problems requiring a broad knowledge base.

True False

29. Expert systems learn from experience as they process information requests.

True False

30. Knowledge engineers perform a role similar to that of systems analysts in conventional information systems development.

True False

31. A neural network can be trained to learn which credit characteristics result in good or bad loans.

True False

32. The Japanese ride on subway trains, use elevators, and drive cars that are guided or supported by fuzzy process controllers.

True False

33. Genetic algorithm software is being used to model a variety of scientific, technical, and business processes.

True False

**Multiple Choice Questions**

34. The type of information required by decision makers in a company is directly related to the level of management decision making and the amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the decision situations they face.

1. financial risk
2. structure
3. variable information
4. urgency

35. Which of the following statements most accurately describes the operational level of management?

1. Composed of a board of directors and an executive committee of the CEO and top executives who develop overall organizational goals, strategies, policies, and objectives as part of a strategic planning process
2. Composed of self-directed teams and middle managers, who develop short-and medium-range plans, schedules, and budgets
3. Composed of self-directed teams or supervisory managers who develop short-range plans, according to procedures and within the budgets and schedules established for the teams and other workgroups of the organization
4. None of the choices are correct.

36. Decisions made at the tactical management level tend to be more:

1. Structured
2. Semi-structured
3. Unstructured
4. Self-structured

37. Decisions made at the strategic management level tend to be more:

1. Structured
2. Semi-structured
3. Unstructured
4. All the choices are correct.

38. Deciding what product lines to develop over the next five years is an example of a(n) \_\_\_\_\_ decision.

1. structured
2. semi-structured
3. unstructured
4. open-ended

39. Which of the following statements is a characteristic of the content dimension of information?

1. Information is provided when it is needed.
2. Information is related to the information needs of a specific recipient for a specific situation.
3. Information is provided in an easy-to-understand form.
4. Information is presented in a narrative, numeric, or graphic form.

40. Which of the following statements is a characteristic of the form dimension of information?

1. Information is based on past, present, or future time periods.
2. Information is arranged in a predetermined sequence.
3. All the information needed is provided.
4. The information can have a broad or narrow scope, or an internal or external focus.

41. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of an unstructured, operational management decision.

1. Cash management
2. Program control
3. Product planning
4. Capital budgeting

42. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an example of a structured, tactical management decision.

1. Program control
2. Employee performance appraisal
3. Credit management
4. Company reorganization

43. Business intelligence applications are based on all of the following except:

1. Personalized and Web-enabled information analysis
2. Knowledge management
3. Rapid information input processes
4. Decision support technologies

44. Decision support systems use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to support the making of semi-structured business decisions.

1. analytical models
2. specialized databases
3. a decision maker's own insights and judgments
4. All of the choices are correct.

45. Dell, Wal-Mart, and Amazon are a few of the companies using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DSS models to stimulate and optimize supply chain flow and reduce inventory levels.

1. pricing
2. product and service quality
3. financial performance
4. supply chain

46. Harrah's, Capital One, and Barclays are a few of the companies using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DSS models to identify customers who produce the greatest profit.

1. loyalty and service
2. product and service quality
3. customer selection
4. financial performance

47. The information products from an MIS take all the following forms except:

1. scheduled reports.
2. exception reports.
3. push reports.
4. pull reports.

48. A weekly sales report is a typical example of a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ report.

1. periodic scheduled
2. exception
3. demand
4. action

49. A major freight company has several thousand drivers. A report containing information about only those company drivers who have not taken a mandatory defensive driving course is an example of a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ report.

1. periodic scheduled
2. exception
3. demand
4. action

50. With \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, information is available whenever a manager demands it.

1. push reporting
2. exception reports
3. periodic scheduled reports
4. demand reports and responses

51. Online analytical processes involve all of the following analytical operations except:

1. Consolidation
2. Filtration
3. Drill-down
4. Slicing and dicing

52. With \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, data about sales offices can be rolled up to the district level, and district-level data can be rolled up to provide a regional-level perspective.

1. consolidation
2. drill-down
3. filtration
4. slicing and dicing

53. Many companies are using GIS technology along with global positioning system devices to do all of the following except:

1. Map customer traffic patterns within each store
2. Choose new retail store locations
3. Optimize distribution routes
4. Analyze the demographics of their target audiences

54. Using a decision support system involves all of the following types of analytical modeling activities except \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ analysis.

1. sensitivity
2. exception
3. what-if
4. goal-seeking

55. Which one of the following should be used to answer the question, "What would happen to sales if we cut advertising by 25 percent?"

1. Goal-seeking
2. Optimization
3. Sensitivity
4. What-if

56. What type of analysis should be used to respond to the statement, "Let's cut advertising by $1000 repeatedly so we can see its relationship to sales"?

1. Goal-seeking
2. Optimization
3. Sensitivity
4. What-if

57. \_\_\_\_\_\_\_\_\_\_ analysis involves making repeated changes to selected variables until a chosen variable reaches a target value.

1. What-if
2. Sensitivity
3. Goal-seeking
4. Optimization

58. \_\_\_\_\_\_\_\_\_\_ analysis is a more complex form of goal-seeking where the goal is to find the best value for a target variable given certain constraints.

1. What-if
2. Sensitivity
3. Market basket
4. Optimization

59. Which of the following is one of the most common and useful types of data mining for marketing?

1. Goal seeking analysis
2. Market basket analysis
3. Optimization analysis
4. Sensitivity analysis

60. The purpose of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is to determine what products customers purchase together with other products.

1. a regression decision tree
2. neural networks
3. cluster detection
4. market basket analysis

61. By targeting customers who are already known to be likely buyers, the effectiveness of a given marketing effort is significantly increased—if the marketing takes the form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. in-store displays
2. catalogs
3. a direct offer
4. The form of the marketing does not matter.

62. According to the textbook case, Warner Home Video is using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to forecast the number of video disks going to retail stores.

1. online order entry statistics
2. mail order catalog data
3. business intelligence applications
4. none of the choices are correct.

63. Decision support in business is changing, driven by all of the following except:

1. Changing corporate spending patterns
2. Rapid developments in end user computing and networking
3. Internet and Web technologies
4. Web-enabled business applications

64. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a Web-based interface and integration of MIS, DSS, EIS, and other technologies that gives all intranet users and selected extranet users access to a variety of internal and external business applications and services.

1. enterprise Resource System
2. enterprise Information Portal
3. executive Information System
4. collaborative Information System

65. Internal enterprise information portal applications typically include access to all of the following except:

1. E-mail and project websites
2. Human resources Web self-services
3. Internet news services
4. Corporate databases

66. According to the text, an enterprise knowledge portal has all of the following except:

1. Personalized views of news and data
2. Desktop publishing tools
3. Collaboration tools
4. Community work areas

67. Which of the following is an example of an unstructured data source?

1. ERP database
2. CRM database
3. Other databases
4. E-mail

68. Artificial intelligence is a science and technology based on:

1. Computer science
2. Biology and psychology
3. Linguistics and mathematics
4. All of the choices are correct.

69. Who was the British AI pioneer responsible for proposing a test for determining if machines could think?

1. Alan Turing
2. John McCarthy
3. Allen Nevell
4. Herbert Simon

70. AI applications can be grouped under all of the following areas except:

1. Cognitive science
2. Robotics
3. Natural interfaces
4. Linguistics

71. All of the following are attributes of intelligent behavior that AI attempts to duplicate except:

1. Reasoning and learning
2. Emotion
3. Problem solving
4. Responding quickly and successfully to new situations

72. All of the following would be considered an AI application in the cognitive science group except:

1. Expert systems
2. Neural networks
3. Speech recognition
4. Learning systems

73. All of the following would be considered an AI application in the robotics group except:

1. Visual perception
2. Neural networks
3. Locomotion
4. Navigation

74. All of the following would be considered an AI application in the natural interface group except:

1. Visual perception
2. Speech recognition
3. Multisensory interfaces
4. Virtual reality

75. Which of the following represents knowledge in the form of past performance, occurrences, and experiences?

1. Case-based reasoning
2. Frame-based knowledge
3. Object-based knowledge
4. Rule-based knowledge

76. Which of the following represents knowledge in the form of a hierarchy or network of collections consisting of a complex package of data values describing its attributes?

1. Case-based reasoning
2. Frame-based knowledge
3. Object-based knowledge
4. Rule-based knowledge

77. Which of the following represents knowledge in the form of a network of data elements including both the data and the methods/processes that act on those data?

1. Case-based reasoning
2. Frame-based knowledge
3. Object-based knowledge
4. Rule-based knowledge

78. Which of the following represents knowledge in the form of statements of fact, typically in the form of premise and conclusion?

1. Case-based reasoning
2. Frame-based knowledge
3. Object-based knowledge
4. Rule-based knowledge

79. Which of the following artificial intelligence applications can learn by processing sample problems and their solutions?

1. Knowledge-based systems
2. Neutral networks
3. Expert systems
4. Fuzzy logic systems

80. Which of the following is an example of a robotics application of AI?

1. Intelligent work environment that helps capture the why and the what of engineered design and decision making
2. Machine-vision inspection systems for gauging, guiding, identifying, and inspecting products and providing competitive advantage in manufacturing
3. Automated animation interfaces that allow users to interact with virtual objects via touch
4. Situation assessment and resource allocation software for uses that range from airlines and airports to logistics centers

81. Within an expert system, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ contains facts about a specific subject area and rules that express the reasoning procedures of an expert on the subject.

1. inference engine
2. knowledge engineer
3. knowledge base
4. None of the choices are correct.

82. According to the text, all of the following are considered benefits of an expert system except:

1. It is cheaper to employ than multiple human experts
2. It can outperform a single human expert in many situations
3. An expert system is faster and more consistent than human experts
4. It does not get tired or distracted

83. According to the text, all of the following are major limitations of an expert system except:

1. It has a limited focus
2. Users of the system have a high learning curve
3. It is unable to learn
4. It is costly to develop

84. An equipment calibration expert system is an example of an expert system in the application category of:

1. Decision management
2. Selection/classification
3. Process monitoring/control
4. Diagnostic/troubleshooting

85. An inventory control expert system is an example of an expert system in the application category of:

1. Decision management
2. Selection/classification
3. Process monitoring/control
4. Diagnostic/troubleshooting

86. An employee performance evaluation expert system is an example of an expert system in the application category of:

1. Decision management
2. Selection/classification
3. Process monitoring/control
4. Diagnostic/troubleshooting

87. A suspect identification expert system is an example of an expert system in the application category of:

1. Decision management
2. Diagnostic/troubleshooting
3. Design/configuration
4. Selection/classification

88. A communications network expert system is an example of an expert system in the application category of:

1. Decision management
2. Design/configuration
3. Process monitoring/control
4. Diagnostic/troubleshooting

89. All of the following would be controlled by the process monitoring/control category of expert systems except:

1. Chemical testing
2. Material selection
3. Inventory control
4. Production monitoring

90. All of the following are suitability criteria for expert systems except:

1. Viability
2. Domain
3. Expertise
4. Structure

91. Which of the following would be considered a fuzzy logic term?

1. Above ten
2. Very low
3. Over ten
4. Between one and five

92. Genetic algorithms were first used to simulate millions of years in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ evolution in just a few minutes on a computer.

1. biological
2. geological
3. ecosystem
4. All of the choices are correct.

93. Multisensory input/output devices, such as data gloves or jumpsuits, are commonly used with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ systems.

1. knowledge-based
2. neural network
3. virtual reality
4. fuzzy logic

94. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is commonly used by pharmaceutical and biotechnology firms to develop and observe the behavior of computerized models of new drugs and materials.

1. Fuzzy logic
2. Virtual reality
3. A neural network
4. An expert system

95. An intelligent agent is:

1. A software surrogate that accomplishes specific tasks for users
2. Database software used to analyze current sales trends
3. A marketing software system used to do statistical analysis
4. A software package used by robots

96. The use of intelligent agents is growing rapidly as a way to do all of the following except:

1. Simplify software use
2. Search websites on the Internet and on corporate intranets
3. Make matches on Internet dating sites
4. Facilitate comparison shopping among the many e-commerce sites on the Web