**Chapter 1: Introduction**

1. The decisions concerning an organization’s goals and future plans are called
   1. financial decisions.
   2. tactical decisions.
   3. strategic decisions.
   4. operational decisions.

Answer: C

Difficulty: Easy

LO: 1.1, Page 4

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Strategic decisions involve higher-level issues concerned with the overall direction of the organization.

1. Tactical decisions define:
2. the day-to-day activities of the organization.
3. the goals and plans of the organization.
4. the domain of operations managers, who are close to the customer.
5. the steps taken to achieve the goals and objectives.

Answer: D

Difficulty: Medium

LO: 1.1, Page 4

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Tactical decisions concern how the organization should achieve the goals and objectives set by its strategy.

1. Picks and Axes Inc. is an Internet-based retail seller of hiking boots and mountaineering gear. The company decides to open retail stores across the major areas of the city to help complement its Internet-based strategy. This activity would be categorized as a(n)
2. tactical decision.
3. operational decision.
4. strategic decision.
5. financial decision.

Answer: C

Difficulty: Medium

LO: 1.1, Page 4

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Strategic decisions involve higher-level issues concerned with the overall direction of the organization; these decisions define the organization’s overall goals and aspirations for the future. Strategic decisions are usually the domain of higher-level executives and have a time horizon of three to five years.

1. \_\_\_\_\_ is the most critical step in a decision making process.
2. Choosing an alternative
3. Identifying and defining the problem
4. Evaluating the alternatives
5. Determining the set of alternatives

Answer: B

Difficulty: Medium

LO: 1.2, Page 5

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Step 1 of decision making, identifying and defining the problem, is the most critical. Only if the problem is well-defined, with clear metrics of success or failure (step 2), can a proper approach for solving the problem (steps 3 and 4) be devised. Decision making concludes with the choice of an alternative (step 5).

1. Firms guided by data-driven decision making have
2. higher market value.
3. lower productivity.
4. higher risk.
5. lower profit.

Answer: A

Difficulty: Medium

LO: 1.2, Page 5

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Firms guided by data-driven decision making have higher productivity and market value and increased output and profitability.

1. \_\_\_\_\_\_ encompasses reports, data dashboards, and descriptive statistics to describe the past data.
2. Predictive analytics
3. Descriptive analytics
4. Prescriptive analytics
5. Decision analysis

Answer: B

Difficulty: Easy

LO: 1.3, Page 5

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Descriptive analytics encompasses the set of techniques that describes what has happened in the past.

1. Information on the number of shipments, how much was included in each shipment, the date each shipment was sent, and so on extracted from the manufacturing plant’s database refers to \_\_\_\_\_\_.
2. spreadsheet models
3. data dashboards
4. data mining
5. data query

Answer: D

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: A data query is a request for information with certain characteristics from a database.

1. Corporate-level managers use \_\_\_\_\_\_ to summarize sales by region, current inventory levels, and other company-wide metrics all in a single screen.
2. simulation
3. crosstabulation
4. data dashboards
5. tables

Answer: C

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: For corporate-level managers, daily data dashboards might summarize sales by region, current inventory levels, and other company-wide metrics.

1. \_\_\_\_\_\_ helps in constructing a mathematical model to predict the future sales, based on past data.
2. Predictive analytics
3. Decision analysis
4. Prescriptive analytics
5. Descriptive analytics

Answer: A

Difficulty: Easy

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Predictive analytics consists of techniques that use models constructed from past data to predict the future.

1. Which of the following techniques is used in predictive analytics?
2. Data dashboards
3. Linear regression
4. Data visualization
5. Optimization models

Answer: B

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Linear regression, time series analysis, some data-mining techniques, and simulation, often referred to as risk analysis, all fall under the banner of predictive analytics.

1. A retail store owner offers a discount on product A and predicts that, the customers would purchase products B and C in addition to product A. Identify the technique used to make such a prediction.
2. Data query
3. Simulation
4. Data mining
5. Data dashboards

Answer: C

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Data mining is a technique used to find patterns or relationships among elements of the data in a large database.

1. \_\_\_\_\_\_ is used in the pharmaceutical industry to assess the risk of introducing a new drug.
2. Data dashboards
3. Charts
4. Spreadsheet models
5. Simulation

Answer: D

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Simulation involves the use of probability and statistics to construct a computer model to study the impact of uncertainty on a decision.

1. Which of the following analytical techniques helps us arrive at the best decision?
2. Predictive analytics
3. Data mining
4. Prescriptive analytics
5. Descriptive analytics

Answer: C

Difficulty: Medium

LO: 1.3, Page 6

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Prescriptive analytics indicate a best course of action to take; that is, the output of a prescriptive model is a best decision.

1. Supply network design models provide the cost-minimizing plant and distribution center locations subject to meeting the customer service requirements. This model is referred as
2. Optimization models.
3. Forecasting models.
4. Data mining models.
5. Network models.

Answer: A

Difficulty: Easy

LO: 1.3, Page 7

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Optimization models give the best decision subject to constraints of the situation.

1. Simulation optimization helps:
2. in identifying the constraints of the situation.
3. to find good decisions in highly complex and highly uncertain settings.
4. in assigning values to outcomes.
5. to model certainty with optimization techniques.

Answer: B

Difficulty: Medium

LO: 1.3, Page 7

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Simulation optimization, combines the use of probability and statistics to model uncertainty with optimization techniques to find good decisions in highly complex and highly uncertain settings.

1. When a decision maker is faced with several decision alternatives and an uncertain set of future events. He/She uses \_\_\_\_\_\_ to develop an optimal strategy.
2. utility theory
3. predictive analytics
4. data mining
5. decision analysis

Answer: D

Difficulty: Medium

LO: 1.3, Page 7

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: The techniques of decision analysis can be used to develop an optimal strategy when a decision maker is faced with several decision alternatives and an uncertain set of future events.

1. \_\_\_\_\_\_ assigns values to outcomes based on the decision maker’s attitude toward risk, loss, and other factors.
2. Simulation optimization
3. Utility theory
4. Optimization model
5. Data dashboard

Answer: B

Difficulty: Medium

LO: 1.3, Page 8

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Decision analysis also employs utility theory, which assigns values to outcomes based on the decision maker’s attitude toward risk, loss, and other factors.

1. Walmart handles over one million purchase transactions per hour. Although the data represents opportunities,
2. it also presents analytical challenges from a processing point of view.
3. it can be processed, or analyzed in a reasonable amount of time.
4. it has itself led to a decrease in the use of analytics.
5. it seldom has valuable applications of analytics.

Answer: A

Difficulty: Medium

LO: 1.4, Page 8

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Although big data represents opportunities, it also presents analytical challenges from a processing point of view.

1. Which of the following examples best describes big data?
2. Facebook processes one thousand picture uploads per day.
3. Five hundred cell-phone owners around the world generate vast amounts of data by calling, texting, tweeting and browsing the web on a daily basis.
4. The amount of data created every 48 hours is equivalent to the entire amount of data created from the dawn of civilization.
5. 9 percent of the data in the world today has been created in the last two years.

Answer: C

Difficulty: Medium

LO: 1.4, Page 8

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Big data is simply a set of data that cannot be managed, processed, or analyzed with commonly available software in a reasonable amount of time.

1. Advanced analytics in a few instances refers to:
2. descriptive and prescriptive analytics.
3. simulation..
4. predictive and prescriptive analytics.
5. decision analysis.

Answer: C

Difficulty: Medium

LO: 1.5, Page 9

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Predictive and prescriptive analytics are sometimes therefore referred to as advanced analytics.

1. In a financial sector, we use \_\_\_\_\_\_ to construct financial instruments such as derivatives.
   1. descriptive and prescriptive models
   2. predictive models

c. descriptive models

d. prescriptive models

Answer: B

Difficulty: Medium

LO: 1.5, Page 9

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Predictive models are used to forecast future financial performance, to construct financial instruments such as derivatives, etc.

1. GE Asset Management uses optimization models to:
2. assess the risk of investment portfolios.
3. forecast future financial performance.
4. successfully manage commercial real estate risk.
5. decide on how to invest its cash received from insurance policies.

Answer: D

Difficulty: Medium

LO: 1.5, Page 9

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: GE Asset Management uses optimization models to decide how to invest its own cash received from insurance policies and other financial products.

1. In order to manage an organization’s human resource activities such as employee hiring, tracking and influencing employee retention, the HR personnel use \_\_\_\_\_\_.
2. descriptive and predictive analytics
3. prescriptive analytics
4. predictive and prescriptive analytics
5. predictive analytics

Answer: A

Difficulty: Medium

LO: 1.5, Page 10

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: The HR analytics team uses descriptive and predictive analytics to support employee hiring and to track and influence retention.

1. A better understanding of consumer behavior through analytics leads to a(n):
2. decrease in demand.
3. assured increase in sales.
4. more effective pricing strategies.
5. poor customer satisfaction.

Answer: C

Difficulty: Easy

LO: 1.5, Page 10

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: A better understanding of consumer behavior through analytics leads to the better use of advertising budgets, more effective pricing strategies, improved forecasting of demand, improved product line management, and increased customer satisfaction and loyalty.

1. All the three descriptive, predictive, and prescriptive analytics are used in:
2. Marketing and HR analytics.
3. Marketing and Health Care analytics.
4. Health Care and HR analytics.
5. Health Care and Financial analytics.

Answer: B

Difficulty: Easy

LO: 1.5, Page 10

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Descriptive, predictive, and prescriptive analytics are all used in marketing and healthcare.

1. A children’s apparel manufacturer used descriptive analytics:
2. to present supply chain to managers visually.
3. to achieve efficiency in delivery of goods.
4. to schedule staff and vehicle for delivery.
5. to plan capacity utilization by incorporating the inherent uncertainty in commodities pricing.

Answer: A

Difficulty: Easy

LO: 1.5, Page 11

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: The women’s apparel manufacturer has successfully used descriptive analytics to present the status of its supply chain to managers visually.

1. The U.S. Internal Revenue Service uses \_\_\_\_\_\_ to identify patterns that distinguish questionable annual personal income tax filings.
2. utility theory
3. prescriptive analytics
4. data mining
5. decision analysis

Answer: C

Difficulty: Easy

LO: 1.5, Page 12

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: The U.S. Internal Revenue Service has used data mining to identify patterns that distinguish questionable annual personal income tax filings.

1. Franchises across several major sports dynamically adjust ticket prices throughout the season to reflect the relative attractiveness and potential demand for each game by using:
2. data mining.
3. predictive analytics.
4. simulation.
5. prescriptive analytics.

Answer: D

Difficulty: Easy

LO: 1.5, Page 12

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Using prescriptive analytics, franchises across several major sports dynamically adjust ticket prices throughout the season to reflect the relative attractiveness and potential demand for each game.

1. Web sites and social media sites use descriptive and advanced analytics to data collected in online experiments:
2. to position ads for the promotion of products and services.
3. to schedule staff and vehicle.
4. to design its premium seating offerings.
5. to decide how much to offer players in contract negotiations.

Answer: A

Difficulty: Easy

LO: 1.5, Page 12

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Leading companies apply descriptive and advanced analytics to data collected in online experiments to determine the best way to configure Web sites, position ads, and utilize social networks for the promotion of products and services.

1. The disadvantage of online experimentation is:
2. it fails to promote sales.
3. it uses trial-and-error to statistically determine the difference in the Web site traffic and sales.
4. its experiments are conducted with risk in disruption of the overall business.
5. it fails to track the results of different versions of a Web site.

Answer: B

Difficulty: Easy

LO: 1.5, Page 13

Bloom’s: Knowledge

BUSPROG: Analytic Skills

DISC:

Feedback: Online experiments are proving to be invaluable because they enable the company to use trial-and-error in determining statistically what makes a difference in their Web site traffic and sales.