

Chapter 9 Planning Tools and Techniques

TRUE/FALSE QUESTIONS

TECHNIQUES FOR ASSESSING THE ENVIRONMENT

1. Benchmarking is a form of environmental scanning.
(False; easy; p. 238)
2. Competitor intelligence chiefly involves corporate spying.
(False; easy; p. 239; AACSB: Ethics)
3. Competitor's advertisements, want-ad placements, and corporate Web sites can all serve as good sources of competitive intelligence.
(True; moderate; p. 239)
4. Buying a competitor's product for evaluation is a form of environmental scanning.
(True; easy; p. 239)
5. Competitor intelligence becomes illegal corporate spying when it involves the theft of proprietary or nonproprietary materials.
(False; easy; p. 240; AACSB: Ethics)
6. Time series analysis, substitution effect, and economic indicators are all examples of quantitative forecasting techniques.
(True; moderate; p. 241)
7. A manager who wanted to predict next quarter's sales on the basis of 4 years of previous sales data would probably use time series analysis.
(True; moderate; p. 241)
8. The more dynamic the environment, the more likely managers are to forecast effectively.
(False; difficult; p. 242)
9. Benchmarking involves evaluating company effectiveness against its own standards.
(False; moderate; p. 243)
10. To be most useful, benchmarking should involve companies in the same industry.
(False; moderate; p. 243)

TECHNIQUES FOR ALLOCATING RESOURCES

11. Before managers can organize and lead in order to implement the goals, they must have a budget.
(False; moderate; p. 244)

12. It is not unusual for budgets to be used for improving time, space, and use of material resources.
(True; easy; p. 244)
13. A cash budget lists primary activities and allocates a dollar amount to each.
(False; easy; p. 244)
14. Profit budgets combine revenue and expense budgets into one.
(True; moderate; p. 244)
15. We live in a world in which almost everything is expressed in monetary units.
(True; moderate; p. 245)
16. Scheduling involves allocating resources by detailing what activities have to be done, the order in which they are to be completed, who is to do each, and when they are to be completed.
(True; easy; p. 246)
17. The bars of a Gantt chart show input, both planned and actual, over a period of time.
(False; moderate; p. 246)
18. The Gantt chart can serve as a control tool because the manager can see deviations from the plan.
(True; moderate; p. 246)
19. Events, activities, and critical paths are all parts of PERT network analysis.
(True; easy; p. 247)
20. Resource allocation problems can be solved with breakeven analysis.
(False; difficult; p. 249)
21. Fixed costs are expenses that do not change, regardless of volume.
(True; easy; p. 249)
22. To compute a breakeven point, a manager needs to know the unit price of the product being sold, the fixed cost per unit, and the total variable cost.
(False; moderate; p. 249)

CONTEMPORARY PLANNING TECHNIQUES

23. Two planning techniques that are appropriate for a dynamic and complex environment are project management and forecasting.
(False; easy; p. 252)
24. In a typical project, all of the work is done by a project manager who reports to the project coordinator.
(False; moderate; p. 253)

25. The project planning process begins by clearly defining the project's goals.
(True; easy; p. 253)
26. Project management is a management technique that emphasizes flexibility and rapid response to market opportunities.
(True; easy; p. 253)
27. Project management differs from managing a production line based mainly on the temporary nature of most projects and project teams.
(True; moderate; p. 254)
28. One of the challenges of being a project manager is managing their full-time employees.
(True; easy; p. 254)
29. Scenario planning is useful in forecasting events such as terrorist attacks and natural disasters.
(False; moderate; p. 255)
30. One suggestion that has been identified by risk experts as particularly important for preparing for unexpected events is to have an early warning system in place.
(True; moderate; p. 255)

MULTIPLE-CHOICE QUESTIONS

For each of the following choose the answer that *most completely* answers the question.

TECHNIQUES FOR ASSESSING THE ENVIRONMENT

31. What are three tools that managers can use to analyze their organization's environment?
- a. strategic planning, environmental scanning, and TQM
 - b. forecasting, budgeting, and time management
 - c. environmental scanning, forecasting, and benchmarking
 - d. benchmarking, planning, and evaluating
- (c; moderate; p. 238)**
32. Environmental scanning is the screening of large amounts of information to anticipate and _____.
- a. follow new legislation that is being passed by Congress
 - b. interpret changes in the environment
 - c. correct failure in pollution equipment
 - d. forecast climatic changes that will affect materials used
- (b; moderate; p. 238)**

33. Research has shown that companies with advanced environmental scanning systems _____.

- a. increased their profits and revenue growth
- b. collect more data, but do not see much difference in their profits and revenue growth
- c. improved their ability to compete in the market place
- d. decreased their profits and revenue growth

(a; moderate; p. 238)

34. One of the fastest growing areas of environmental scanning is _____.

- a. regression analysis
- b. competitor intelligence
- c. reengineering
- d. forecasting

(b; moderate; p. 239)

35. Competitor intelligence allows managers to _____.

- a. react to competitor actions
- b. cut cost below the competition
- c. increase market diversification
- d. anticipate competitor actions

(d; difficult; p. 239)

36. Competitor intelligence experts suggest that 80 percent of what a manager needs to know about competitors can be found out from _____.

- a. companies such as Dun & Bradstreet
- b. their competitors' employees, suppliers, and customers
- c. their competitors' products, suppliers, and customers
- d. their own employees, suppliers, and customers

(d; moderate; p. 239)

37. Many firms regularly buy competitors' products and have their own engineers study them to learn about new technical innovations. This process is called _____.

- a. competitor engineering
- b. competition engineering
- c. strategic engineering
- d. reverse engineering

(d; moderate; p. 239)

38. When seeking competitor intelligence, there is often a fine line between what's considered legal and ethical and what's considered _____.

- a. illegal and ethical
- b. illegal and unethical
- c. legal and unethical
- d. practical and legal

(c; moderate; p. 240; AACSB: Ethics)

39. The value of global scanning is largely dependent on the _____.

- a. extent of foreign competition activities in the market
- b. price that foreign competition charges in the market
- c. extent of government regulation activities in the foreign market
- d. extent of the organization's global activities

(d; moderate; p. 240; AACSB: Globalizations)

40. Managers need forecasts that will allow them to predict future events effectively and _____.

- a. accurately
- b. efficiently
- c. specifically
- d. in a timely manner

(d; moderate; p. 241)

41. Environmental scanning creates the basis for _____.

- a. project management
- b. forecasts
- c. benchmarking
- d. budgeting

(b; difficult; p. 241)

42. What is defined as a prediction of outcomes?

- a. a forecast
- b. a benchmark
- c. a budget
- d. a resource

(a; easy; p. 241)

43. Virtually any component in the organization's _____ environments can be forecasted.

- a. general and specific
- b. internal and external
- c. external
- d. general

(c; difficult; p. 241)

44. Forecasting techniques fall into what two categories?

- a. fixed asset and human capital
- b. predictive and confirmatory
- c. quantitative and qualitative
- d. empirical and conceptual

(c; moderate; p. 241)

45. Quantitative forecasting applies a set of mathematical rules to _____.
- a. develop predictions of outcomes from customers' opinions
 - b. a series of past data to predict outcomes
 - c. analyze what has happened in the past and determine when it will occur again
 - d. estimate the number of products that should be produced at a given time

(b; moderate; p. 241)

46. What type of forecasting technique relies on the judgment and opinion of knowledgeable individuals?
- a. qualitative
 - b. short term
 - c. confirmatory
 - d. predictive

(a; moderate; p. 241)

47. If General Motors plans on changing their truck paint color scheme because they believe that in the future more women will be interested in purchasing these vehicles, this is an example of what kind of environmental scanning?
- a. scenario
 - b. forecasting
 - c. benchmarking
 - d. anticipating

(b; moderate; p. 241)

48. What forecasting technique uses a mathematical formula to predict how, when, and under what circumstances a new product or technology will replace an existing one?
- a. econometric models
 - b. economic indicators
 - c. substitution effect
 - d. regression models

(c; moderate; p. 241; AACSB: Technology)

49. What forecasting technique combines and averages the opinions of experts?
- a. sales force composition
 - b. customer evaluation
 - c. substitution effect
 - d. jury of opinion

(d; moderate; p. 241)

50. CPFR®, Internet-based software, offers a standardized way for retailers and manufacturers to use the Internet to _____.

- a. collaboratively benchmark
- b. collaboratively forecast
- c. perform environmental scanning
- d. perform global scanning

(b; difficult; p. 242; AACSB: Technology)

51. The goal of forecasting is to provide managers with _____.

- a. accurate predictions of trends and events
- b. decisions as to what customers will be demanding and when
- c. information about the dynamics of environmental change
- d. information that will facilitate decision making

(d; difficult; p. 242)

52. Forecasting techniques are most accurate when the environment is _____.

- a. changing inversely
- b. dynamic on the long term, so turning points can be identified
- c. not rapidly changing
- d. seasonal, but not cyclical

(c; moderate; p. 242)

53. One suggestion for improving forecasting effectiveness is to _____.

- a. use complex forecasting sequences
- b. gather as much data as possible
- c. always employ global forecasting
- d. use simple forecasting techniques

(d; moderate; p. 242)

54. When comparing every forecast with a no-change (in an environment) forecast, the no-change forecast is accurate approximately _____.

- a. half of the time
- b. three-fourths of the time
- c. two-thirds of the time
- d. 80 percent of the time

(a; difficult; p. 242)

55. Managers should use _____ that look 12 to 18 months ahead, instead of using a single, static forecast.

- a. no-change forecasts
- b. rolling forecasts
- c. quantitative forecasts
- d. qualitative forecasts

(b; moderate; p. 242)

56. Which of the following is a suggestion for improving forecasting effectiveness?

- a. do not utilize a “no change” scenario
- b. base forecasts beyond the next 2 years
- c. utilize the “half-life” estimation model
- d. employ multiple forecasting methods

(d; moderate; p. 242)

57. Benchmarking is the search for the best practices among competitors or noncompetitors that lead to their _____.

- a. ability to achieve such a large market share
- b. ability to so accurately predict the environment
- c. superior performance
- d. ability to identify new market niches

(c; difficult; p. 243)

58. Which of the following is true concerning benchmarking?

- a. Benchmarking always involves analyzing a competitor.
- b. Benchmarking is most effective when analyzing within your own industry.
- c. Benchmarking may involve analyzing a company with a completely different product.
- d. Benchmarking foreign companies is not suggested due to cultural differences.

(c; moderate; p. 243)

59. Some companies have chosen some pretty unusual benchmarking partners. Southwest Airlines studied _____.

- a. package handling at FedEx hubs
- b. UPS package-handling hubs
- c. Indy pit crews
- d. tire changers at Goodyear stores

(c; moderate; p. 243)

TECHNIQUES FOR ALLOCATING RESOURCES

60. A budget is a numerical plan for allocating resources _____.

- a. to specific activities
- b. dedicated to special projects
- c. to areas of production
- d. to developing new products

(a; difficult; p. 244)

61. What type of budget projects future sales?

- a. cash budget
- b. expense budget
- c. profit budget
- d. revenue budget

(d; easy; p. 244)

62. What type of budget takes into account the costs that vary with volume?

- a. cash budget
- b. expense budget
- c. fixed budget
- d. variable budget

(d; easy; p. 244)

63. What type of budget assumes a fixed level of sales or production?

- a. fixed budget
- b. profit budget
- c. revenue budget
- d. variable budget

(a; easy; p. 244)

64. Budgets are popular most likely because they're applicable to a wide variety of organizations and _____.

- a. define how much money will be spent
- b. specify how much money the organizations will receive
- c. work activities within organizations
- d. estimate the number of units that will be produced

(c; difficult; p. 245)

65. Which of the following is an accurate statement about budgets?

- a. They are typically not used for time estimating.
- b. By nature, they are only financially based.
- c. They are a useful tool for allocating resources and guiding work in diverse departments.
- d. They are typically used for large and small capital expenditures.

(c; difficult; p. 245)

66. Budgeting is an important managerial activity because it forces financial discipline and structure _____.

- a. with the cash part of the organization
- b. throughout the organization
- c. in the areas of the organization that need it the most
- d. especially with start-up companies

(b; difficult; p. 245)

67. Many managers don't like preparing budgets because they feel the process is time consuming, inflexible, inefficient, and _____.

- a. infallible
- b. inflationary
- c. insignificant
- d. ineffective

(d; difficult; p. 245)

68. Which of the following is not a scheduling device used by managers?
- a. benchmarking
 - b. Gantt charts
 - c. load charts
 - d. PERT network analysis

(a; easy; p. 246)

69. The Gantt chart was developed during the early 1900s by Henry Gantt, an associate of the scientific management leader _____.

- a. Henri Fayol
- b. Fredrich Traylor
- c. Henry Ford
- d. Frederick Taylor

(d; moderate; p. 246)

70. A Gantt chart is essentially a bar graph with _____ axis and _____ axis.

- a. time on the vertical; the activities to be scheduled on the horizontal
- b. time on either; the activities to be scheduled on the other
- c. time on the vertical; project completion on the horizontal
- d. time on the horizontal; the activities to be scheduled on the vertical

(d; moderate; p. 246)

71. The Gantt chart visually shows when tasks are supposed to be done and compares that with the _____.

- a. supervisors' estimate of completion
- b. actual progress on each
- c. scheduled delivery of materials
- d. customer's requested date of delivery

(b; difficult; p. 246)

72. Load charts list on the vertical axis either departments or _____.

- a. functional areas
- b. specific resources
- c. budgets
- d. product weights

(b; moderate; p. 246)

73. Load charts schedule capacity by _____.

- a. goals
- b. activity
- c. work area
- d. time

(c; easy; p. 246)

74. The Program Evaluation and Review Technique (PERT) is especially useful in scheduling _____.

- a. large projects
- b. programs
- c. processes
- d. planning

(a; difficult; p. 247)

75. A PERT network depicts the sequence of activities needed to complete a project and the _____ each activity.

- a. estimated day of
- b. time or costs associated with
- c. amount of money needed for
- d. step of

(b; difficult; p. 247)

76. The four terms that are required to construct a PERT network are: events, activities, _____, and _____.

- a. crucial path; slack time
- b. critical path; estimated time
- c. crucial path; earliest date
- d. slack time; critical path

(d; moderate; p. 247)

77. In a PERT network, events are _____.

- a. end points that represent the completion of major activities
- b. the longest or the most time-consuming sequence of events in a PERT network
- c. the amount of time an individual activity can be delayed without delaying the whole project
- d. all key activities needed to complete a project

(a; moderate; p. 247)

78. Which of the PERT steps represent the time or resources required to progress from one event to another?

- a. events
- b. critical paths
- c. checkpoints
- d. activities

(d; moderate; p. 247)

79. In the PERT process, what is the critical path?

- a. the central guideline that other activities feed into
- b. the checkpoint for comparing standards of completion
- c. the most time-consuming sequence of events and activities
- d. the most costly path in a scheduling outline

(c; moderate; p. 247)

80. The first step in developing a PERT network is to _____.
- determine the order in which events must be completed
 - identify every significant activity that must be achieved for a project to be completed
 - diagram the flow of activities from start to finish
 - compute a time estimate for completing each activity

(b; easy; p. 248)

81. A manager who needed to cut the completion time of a project would want to concentrate on _____ that could be completed faster.

- those activities along the critical path
- those activities that allow for slack time
- activities
- events

(a; moderate; p. 249)

82. What type of technique is widely used to help managers make profit projections?

- factor analysis
- cost accounting
- breakeven analysis
- PERT network analysis

(c; easy; p. 249)

83. An organization breaks even when its total revenue is just enough to equal its _____.

- fixed cost
- breakeven costs
- variable costs
- total cost

(d; moderate; p. 249)

84. Examples of fixed costs include _____.

- property taxes
- energy costs
- labor costs
- raw materials

(a; easy; p. 249)

85. If a retail sales manager wants to know how many denim jackets must be sold in order to reach a specified profit objective, he or she is employing what type of planning tool?

- breakeven analysis
- PERT network analysis
- Gantt chart
- cost accounting

(a; difficult; p. 249)

86. What is a mathematical technique that solves resource allocation problems?

- a. breakeven analysis
- b. linear programming
- c. PERT network analysis
- d. a Gantt chart

(b; easy; p. 250)

87. Because linear programming requires that there be limited resources and outcome optimization, it

- _____.
- a. cannot be applied to all resource allocation problems
 - b. cannot have many constraints
 - c. can be applied to all resource allocation problems
 - d. calculates lost time

(a; difficult; p. 250)

88. Some applications for linear programming include _____.

- a. scheduling a few activities that are independent of each other
- b. planning a large project
- c. coordinating hundreds of activities, some of which must be done simultaneously
- d. selecting transportation routes that minimize shipping costs

(d; moderate; p. 250)

89. What is a mathematical equation that can predict the outcome of all proposed alternatives?

- a. a constraint
- b. a linear program
- c. an objective function
- d. a feasibility region

(c; moderate; p. 251)

90. Constraints imposed by capacity limits establish the _____.

- a. objective function
- b. feasibility region
- c. subjective region
- d. linear program

(b; moderate; p. 252)

CONTEMPORARY PLANNING TECHNIQUES

91. A project is considered to be a one-time set of activities that has _____.

- a. definitive assessment stages across time
- b. significant points to be analyzed
- c. a definite beginning and ending point in time
- d. an estimated start and finish date

(c; difficult; p. 253)

92. Project management is the task of getting a project's activities done on time, within budget, and _____.

- a. of following directions
- b. of making adjustments in plans
- c. according to specifications
- d. within the limits of city engineering

(c; difficult; p. 253)

93. To plan a project, all activities in the project and the resources needed to do them must be _____.

- a. satisfied
- b. on hand
- c. identified
- d. trained

(c; difficult; p. 253)

94. What step often uses flowchart diagrams such as a Gantt chart, a load chart, or a PERT network?

- a. compare with objectives
- b. determine project completion date
- c. establish sequences
- d. estimate time for activities

(c; moderate; p. 253)

95. The role of project manager remains difficult because she or he is managing people who _____.

- a. will make mistakes during the project
- b. might not show up for work on the day of an important presentation
- c. are not skilled enough to participate in the project
- d. are still linked to their permanent work areas

(d; difficult; p. 254)

96. The only real influence project managers have is _____.

- a. their ability to keep the project moving forward
- b. their communication skills and their power of persuasion
- c. the ability of the supplier to deliver
- d. their ability to insist that the project be finished according to plans

(b; moderate; p. 254; AACSB: Communication)

97. As managers assess the environment, issues and concerns that could affect their organization's current or planned operations are likely to be revealed, and they _____.

- a. won't be equally important
- b. won't be equally associated
- c. will be equally important
- d. will be as important as others, but not equal in value

(a; difficult; p. 254)

98. What is a consistent view of what the future is likely to be?

- a. a critical path
- b. a project
- c. a resource
- d. a scenario

(d; easy; p. 254)

99. Developing scenarios can be described as _____.

- a. planning
- b. thinking about what has happened
- c. guessing as to what will change
- d. contingency planning

(d; moderate; p. 254)

100. Different assumptions in a scenario can lead to _____.

- a. different outcomes
- b. the same estimates
- c. disputes over which is correct
- d. divergent ideas into results

(a; difficult; p. 255)

101. The intent of scenario planning is not to try to predict the future, but to reduce uncertainty by _____.

- a. calculating the potential profits from different specified conditions
- b. pretending that the customer needs are different from those forecasted
- c. supposing that a different market mix existed
- d. playing out potential situations under different specified conditions

(d; moderate; p. 255)

102. Although scenario planning is useful in anticipating events that can be anticipated, it is difficult to _____.

- a. establish datelines
- b. prepare for increased sales of output
- c. present the fact when they occur
- d. forecast random events

(d; moderate; p. 255)

103. Planning tools and techniques can help managers prepare _____.

- a. confidently for the future
- b. future events
- c. better budgets
- d. larger projects

(a; difficult; p. 256)

104. Planning tools and techniques will never replace the manager's _____ in using the information gained to develop effective and efficient plans.
- knowledge and expertise
 - skills and capabilities
 - motivation and leadership
 - time and efforts

(b; difficult; p. 256)

SCENARIO QUESTIONS

For each of the following choose the answer that *most completely* answers the question.

TECHNIQUES FOR ASSESSING THE ENVIRONMENT

Dollars to Donuts (Scenario)

Ralph Friedgrin is the owner of a chain of five donut shops in Smalltown, MD. Smalltown is located along the Interstate 95, about half-way between Lost and Nowhere.

105. Mr. Friedgrin demands that the five store managers during their weekly meeting discuss what the customers in their stores are requesting. Mr. Friedgrin always reads the monthly donut-industry magazine, *Holey Mazole*. He always attends the Annual National Conference of Donut Makers and updates his managers when he returns. These activities are examples of _____.
- competitor intelligence
 - boundary spanning
 - environmental scanning
 - intellectual exercise

(c; difficult; p. 238)

106. On occasion, Mr. Friedgrin goes to nearby, larger towns such as Lost and Nowhere to visit big chain donut shops. Mr. Friedgrin purchases donuts and chats with these customers about their donut likes and dislikes. He also will “peek” into the kitchen to view the equipment, or when he can, he will watch through the customer observation window to see the whole process. Mr. Friedgrin is performing which planning technique?

- competitor intelligence
- environmental scanning
- intellectual exercise
- boundary spanning

(a; difficult; p. 239)

107. Mr. Friedgrin went to donut shops in Lost and Nowhere so he could talk with his competitor's customers, peek at their equipment, and evaluate their donut-making process. These acts were _____.

- a. legal
- b. legal and ethical
- c. ethical
- d. neither legal nor ethical

(b; easy; p. 240; AACSB: Ethics)

108. Mr. Friedgrin's largest supplier recently approached him about implementing a Web-based software that will utilize data about past sales trends promotions and other factors to jointly calculate a demand forecast for particular products. His supplier referred to this system as a _____.

- a. JIT system
- b. CPFR system
- c. RFID system
- d. SCM system

(b; moderate; p. 241; AACSB: Technology)

109. If Mr. Friedgrin knew the average number of donuts that Smalltown adults bought per week and the number of Smalltown adults, he could then use which planning tool?

- a. environmental scanning
- b. qualitative forecasting technique
- c. quantitative forecasting technique
- d. scenario projection technique

(c; difficult; p. 241)

110. Mr. Friedgrin recently had three selected stores experiment with three new frying oils. Customers were then asked to take a taste-preference test of three sample donuts, one for each of the oils: N, O, and W. Based upon the results of this test, it was concluded that oil N in the test was favored. Which planning tool was Mr. Friedgrin using in this instance?

- a. quantitative forecasting technique
- b. Delphi technique
- c. focus group technique
- d. qualitative forecasting technique

(d; moderate; p. 241)

111. Mr. Friedgrin contacted the owner of a NASCAR racing team to see if he could spend time with its pit crew to study their teamwork. This is an example of _____.

- a. qualitative forecasting
- b. benchmarking
- c. quantitative forecasting
- d. scanning

(b; easy; p. 243)

112. Mr. Friedgrin recently went on a well-deserved vacation. While at the beachfront resort, Mr. Friedgrin took many notes regarding the excellent service he received. On the flight home, he reviewed his notes to see what lessons he could apply to his donut shops. When Mr. Friedgrin is out looking at the “best practices” of the other donut stores in these towns, he is performing which of the following?
- a. qualitative forecasting
 - b. benchmarking
 - c. environmental scanning
 - d. scenario planning

(b; easy; p. 243)

TECHNIQUES FOR ALLOCATING RESOURCES

Donut Expansion (Scenario)

Ralph Friedgrin, owner of five donut shops in Smalltown, MD, located half the way between Lost and Nowhere, recently began development of expansion plans based on analyses conducted with his planning tools and techniques. His management team concluded that it was time to expand his donut business to a whole new market niche. Fred, the project manager, has asked that an estimated time of construction and estimated costs be provided. Fred approved construction of two stores in Littleville and recently contracted with the engineering-manufacturing firm from Nowhere, Planning Plus, Inc. (PPI), to build the stores. Fred informs PPI of other nearby donut stores’ “best practices” and tells them that he wants them incorporated into his new stores.

113. Fred has planned the opening day activities. The donut store will be open for 24 hours. He has planned who will work which hours and who will perform which duties during the time the store is open. Fred has also planned which type of donut is to be made at what time. What Fred did in making these plans is known as _____.
- a. Gantt chart
 - b. PERT
 - c. linear programming
 - d. scheduling

(d; easy; p. 246)

114. PPI developed a diagram similar to a flowchart to estimate the probable time required to complete construction of the two stores. This flowchart-like diagram is known as _____.
- a. a program evaluation and review technique
 - b. a Gantt chart
 - c. linear programming
 - d. scheduling

(b; moderate; p. 246)

115. Fred knew how much capacity it took to produce each type of donut with each type of glaze and the profit margins for each type of donut with each type of glaze. If he wants to analyze the product mix that will maximize profits, then he should use _____.
- a. budgeting
 - b. breakeven analysis
 - c. linear programming
 - d. scheduling
- (c; moderate; p. 250)**

Allocating Resources at Planning Plus, Inc. (Scenario)

Management from all levels of Planning Plus, Inc. (PPI) have been making decisions as to how to best accomplish next year's organizational plans, objectives, and goals. The production department has been making numerical plans to allocate the number of employees, man-hours per machine, and so on within the department. Accounting has been determining the production quantity when there will be enough total revenue to just equal its total costs. Purchasing has been establishing delivery dates that align with the need dates of the material in the production department. Marketing has been planning the introduction of a new product. What the marketing department is using is essentially a bar graph with time on the horizontal axis and activities to be scheduled on the other.

116. When the production department makes numerical plans to allocate the number of employees, man-hours per machine, and so on within the department, it is using which of the following resource allocation techniques?
- a. scheduling
 - b. linear programming
 - c. breakeven analysis
 - d. budgeting

(d; difficult; p. 244)

117. When the purchasing department establishes delivery dates that align with the need dates of the material in the production department, purchasing is using which of the following resource allocation techniques?
- a. scheduling
 - b. linear programming
 - c. breakeven analysis
 - d. budgeting

(a; moderate; p. 246)

118. When the marketing department uses what is essentially a bar graph with time on the horizontal axis and activities to be scheduled on the other, it is using which of the following resource allocation techniques?
- PERT
 - load chart
 - Gantt chart
 - scheduling

(c; moderate; p. 246)

119. Top management has put together a chart that lists entire departments on the vertical axis and time on the horizontal axis. This allows managers to plan and control capacity utilization. Such a chart is known as a _____.

- Gantt chart
- PERT
- load chart
- breakeven analysis

(c; moderate; p. 246)

120. The sales and marketing departments are planning to undertake a large departmental reorganization. This project will require hundreds of individual activities, some of which must be done simultaneously and some of which can't begin until preceding activities have been completed. How might managers schedule such a complex project?

- Gantt chart
- PERT network analysis
- load chart
- collaborative planning and forecasting

(b; moderate; p. 247)

121. When the accounting department determines the production quantity where there will be enough total revenue to just equal its total costs, then it is using which of the following resource allocation techniques?

- budgeting
- breakeven analysis
- load chart
- scheduling

(b; moderate; p. 249)

122. The marketing department is considering new techniques for allocating their limited advertising budget among various product brands. What technique would be most appropriate?

- scheduling
- breakeven analysis
- linear programming
- PERT network analysis

(c; moderate; p. 250)

123. The logistics department is considering new techniques for selecting transportation routes that minimize shipping costs. What technique would be most appropriate?
- a. scheduling
 - b. breakeven analysis
 - c. linear programming
 - d. PERT network analysis

(c; moderate; p. 250)

Widgets Anyone? (Scenario)

Rose has just graduated from college with a degree in accounting. Her boss has told her, "I can't understand it; we sold a lot of units last month, and the accountants say we're losing money." Rose asked about the cost structure for widgets and was told that widgets sell for \$9 each, variable costs are \$6 each, and fixed costs are \$30,000.

124. Rose calculated a breakeven point in units to be _____.
- a. 10,000 units
 - b. 5,000 units
 - c. 20,000 units
 - d. 3,000 units

(a; moderate; p. 249)

125. What is the profit if the company sells 15,000 units?
- a. \$5,000
 - b. \$9,000
 - c. \$15,000
 - d. \$18,000

(c; difficult; p. 249)

126. If the company can lower fixed costs to \$21,000, what is the new breakeven point in units?
- a. 3,000
 - b. 5,000
 - c. 7,000
 - d. 10,000

(c; difficult; p. 249)

Firehouse Cookbook (Scenario)

The Apex Volunteer Fire Department is selling cookbooks as a fund-raiser. Each cookbook costs \$3 to produce and fixed costs are \$400.

127. If the cookbooks sell for \$8 each, how many cookbooks will they have to sell to break even?
- a. 50
 - b. 75
 - c. 80
 - d. 100

(c; moderate; p. 249)

128. If the cookbooks sell for \$8 each, how many cookbooks will they have to sell to make \$5,000 profit?
- a. 540
 - b. 1,080
 - c. 2,160
 - d. 2,334

(b; difficult; p. 249)

CONTEMPORARY PLANNING TECHNIQUES

Project: Management (Scenario)

Monica Cutrell is a project management consultant hired by ABC Manufacturing to help reengineer some of their key production processes.

129. CEO Buddy Bacon asks Monica what processes should be considered for project management. Monica replies that the types of projects _____ are ideal candidates for project management.
- a. containing simple interrelated tasks
 - b. that are permanent in nature
 - c. that require specialized skills
 - d. that fit into the standardized planning procedures

(c; moderate; p. 253)

130. Mr. Bacon asks Monica where they should begin. Monica replies that typically, the project management process begins with clearly defining the project's goals. Next, _____ should be determined.
- a. the sequence of completion
 - b. what activities are involved in the project
 - c. what materials and labor are needed
 - d. the project completion date

(b; difficult; p. 253)

131. Mr. Bacon asks about some of the challenges that will face the employees they hire to fill the project manager role. Monica replies that the role of the project manager is often very difficult because _____.
- a. they end up competing with each other
 - b. they have to learn and employ very sophisticated computerized online scheduling programs
 - c. team members usually work on just one project
 - d. there are no project management tools available to help them
- (a; moderate; p. 254)**

Planning at TFIG Restaurants (Scenario)

Alex is a regional manager for TFIG Restaurants. Alex's region contains 200 TFIG restaurants with 5500 full- and part-time employees. Many employees, particularly entry-level servers and bartenders, are paid minimum wage. The wage scale for more experienced hourly employees who are making more than minimum wage is pegged to the minimum wage rate. Management believes that Congress will reconsider the current minimum wage rate in their upcoming session. Alex must determine the implications for his region's labor costs if minimum wages are raised. As a result, Alex develops a series of plans.

132. Alex is engaged in scenario planning, which can also be described as _____ planning.
- a. worst/best-case event
 - b. scenario
 - c. script theory in use
 - d. contingency
- (d; moderate; p. 254)**
133. In presenting his results to top management, the COO asks Alex to explain why he developed plans based on multiple scenarios as opposed to only the most likely event. Alex explains that the intent of scenario planning is to _____.
- a. try and predict the future
 - b. reduce uncertainty
 - c. get activities done on time, within budget, and according to specification
 - d. determine when a project can be completed
- (b; difficult; p. 254)**
134. The CEO is impressed with Alex's presentation and wants to know more about the scenario planning approach so that he can apply it to other areas of the business. He asks Alex what the key limitations of this approach are. Alex knows that the biggest weakness of scenario planning is that _____.
- a. it's difficult to forecast random events that can't be anticipated
 - b. different assumptions lead to different outcomes
 - c. the future can't be predicted
 - d. team members are typically assigned to two or three projects at a given time
- (a; difficult; p. 255)**

ESSAY QUESTIONS

TECHNIQUES FOR ASSESSING THE ENVIRONMENT

135. In a short essay, discuss environmental scanning and describe two methods of environmental scanning.

Answer

Managers in both small and large organizations use environmental scanning, which is the screening of large amounts of information to anticipate and interpret changes in the environment. Extensive environmental scanning is likely to reveal issues and concerns that could affect an organization's current and planned activities. Research has shown that companies with advanced environmental scanning systems increased their profits and revenue growth. Organizations that don't keep on top of environmental changes are likely to face the opposite situation.

- a. One of the fastest growing areas of environmental scanning is **competitor intelligence**. It's a process by which organizations gather information about their competitors and get answers to questions such as: Who are they? What are they doing? How will what they're doing affect us? Competitor intelligence experts suggest that 80 percent of what managers need to know about competitors can be found out from their own employees, suppliers, and customers. Competitor intelligence doesn't have to involve spying. Advertisements, promotional materials, press releases, reports filed with government agencies, annual reports, want ads, newspaper reports, and industry studies are examples of readily accessible sources of information. Attending trade shows and debriefing the company's sales force can be other good sources of competitor information. Many firms regularly reverse engineer competitors' products to learn about new technical innovations. In addition, the Internet has opened up vast sources of competitor intelligence as many corporate Web pages include new product information and other press releases.
- b. Another type of environmental scanning that's particularly important is **global scanning**. Because world markets are complex and dynamic, managers have expanded the scope of their scanning efforts to gain vital information on global forces that might affect their organizations. The value of global scanning to managers, of course, is largely dependent on the extent of the organization's global activities. For a company that has significant global interests, global scanning can be quite valuable. The sources that managers use for scanning the domestic environment are too limited for global scanning. Managers need to globalize their perspectives and information sources. For instance, they can subscribe to information clipping services that review world newspapers and business periodicals and provide summaries of desired information. Also, there are numerous electronic services that provide topic searches and automatic updates in global areas of special interest to managers.

(moderate; pp. 238-240; AACSB: Ethics)

136. In a short essay, briefly discuss the goal of forecasting and describe the environmental conditions under which it is most accurate. Next, detail three of the ways managers can improve the effectiveness of their forecasting efforts. Explain some of the rationale behind why these enhancements work.

Answer

The goal of forecasting is to provide managers with information that will facilitate decision making. Forecasting techniques are most accurate when the environment is not changing rapidly. The several ways by which managers can improve the effectiveness of their forecasting efforts are to:

- a. Use simple forecasting methods—they tend to do as well and often better than complex methods that may mistakenly confuse random data for meaningful information.
- b. Compare every forecast with “no change” —a no change forecast is right about half of the time.
- c. Don’t rely on a single forecasting method—make forecasts with several models and average them, especially when making long-term forecasts.
- d. Don’t assume you can accurately identify turning points in a trend—what is perceived as a turning point often turns out to be a random event.
- e. Practice—forecasting is a managerial skill that can be practiced and improved.

(moderate; pp. 240-242)

137. In a short essay, discuss quantitative and qualitative forecasting techniques. Then identify and describe two popular techniques of each.

Answer

Forecasting techniques fall into two categories: quantitative and qualitative. Quantitative forecasting applies a set of mathematical rules to a series of past data to predict outcomes. These techniques are preferred when managers have sufficient hard data that can be used.

- a. Times series analysis—fits a trend line to a mathematical equation and projects into the future by means of this equation.
- b. Regression models—predicts one variable on the basis of known or assumed other variables.
- c. Econometric models—uses a set of regression equations to simulate segments of the economy.
- d. Economic indicators—uses one or more economic indicators to predict a future state of the economy.

Qualitative forecasting, in contrast, uses the judgment and opinions of knowledgeable individuals to predict outcomes. Qualitative techniques typically are used when precise data are limited or hard to obtain.

- a. Jury of opinion—combines and averages the opinions of experts.
- b. Sales force composition—combines estimates from field sales personnel of customers’ expected purchases.
- c. Customer evaluation—combines estimates from established customers’ purchases.

(moderate; p. 241)

138. In a short essay, describe the technique of benchmarking. What are the four steps typically used in benchmarking?

Answer

Benchmarking is the search for the best practices among competitors or noncompetitors that lead to their superior performance. The basic idea behind benchmarking is that managers can improve quality by analyzing and then copying the methods of the leaders in various fields. Even small companies have found that benchmarking can bring big benefits. The first step in using benchmarking is to form a benchmarking planning team. This team will identify: what is to be benchmarked; comparative organizations; and data collection methods. Then the team gathers internal and external data. The third step is to analyze the data to identify performance gaps. The final step is to prepare and implement an action plan that identifies best practices.

(easy; p. 243)

TECHNIQUES FOR ALLOCATING RESOURCES

139. In a short essay, identify and explain the five steps in developing a PERT network.

Answer

The first step in developing a PERT network is to identify every significant activity that must be achieved for a project to be completed. The accomplishment of each activity results in a set of events or outcomes. The second step is to determine the order in which these events must be completed. The third step in developing a PERT network is to diagram the flow of activities from start to finish, identifying each activity and its relationship to all other activities. Use circles to indicate events and arrows to represent activities. This results in a flowchart diagram called a PERT network. The fourth step is to compute a time estimate for completing each activity. This is done with a weighted average that uses an optimistic time estimate (to) of how long the activity would take under ideal conditions, a most likely estimate (tm) of the time the activity normally should take, and a pessimistic estimate (tp) that represents the time that an activity should take under the worst possible conditions. Using the network diagram that contains time estimates for each activity, the final step is to determine a schedule for the start and finish dates of each activity and for the entire project. Any delays that occur along the critical path require the most attention because they can delay the whole project.

(moderate; p. 248)

140. In a short essay, define breakeven analysis and discuss the various costs associated with a breakeven analysis. Include a specific example of a breakeven problem and a solution to support your answer.

Answer

Breakeven analysis is a widely used resource allocation technique to help managers make profit projections. Breakeven analysis is a simple calculation, yet it's valuable to managers because it points out the relationship among revenues, costs, and profits. To compute breakeven point (BP), a manager needs to know the unit price of the product being sold (P), the variable cost per unit (VC), and total fixed costs (TFC). An organization breaks even when its total revenue is just enough to equal its total costs. However, total costs have two parts: fixed and variable. Fixed costs are expenses that do not change regardless of volume. Examples include insurance premiums, rent, and property taxes. Variable costs change in proportion to output and include raw materials, labor costs, and energy costs. Breakeven point can be computed graphically or by using the following formula: $BE = TFC/(P - VC)$.

(easy; pp. 249-250)

CONTEMPORARY PLANNING TECHNIQUES

141. In a short essay, define the practice of project management and explain why many organizations are turning to this approach. Identify three characteristics of organizational projects that would make them good candidates for the project management approach.

Answer

Project management is the task of getting a project's activities done on time, within budget, and according to specifications. More and more organizations are turning to project management because the approach fits well with their need for increased managerial flexibility and rapid response to emerging market opportunities. Projects that are not consistent with the standardized planning procedures that guide the organization's routine work activities are ideal candidates for project management. Examples of such situations include when the organization undertakes a project that is: unique, has specific deadlines, contains complex interrelated tasks requiring specialized skills, and is temporary in nature.

(easy; pp. 253-254)

142. In a short essay, define a scenario and discuss the concept of scenario planning.

Answer

A scenario is a consistent view of what the future is likely to be. Developing scenarios also can be described as contingency planning; that is, if this is what happens, then these are the actions we need to take. The intent of scenario planning is not to try to predict the future but to reduce uncertainty by playing out potential situations under different specified conditions. Although scenario planning is useful in anticipating events that can be anticipated, it's difficult to forecast random events—the major surprises and aberrations that can't be foreseen.

(easy; p. 255)