## Applying the Concept Answers

**Applying the Concept 4-1: Steps in Decision Making**

Identify the step in the decision-making model represented by each statement.

Step 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Step 6: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**1. “Tyson, what symptoms have you observed to indicate that a problem even exists?”**

Step 1. When defining the problem, you distinguish symptoms from causes of the problem.

**2. “That is a good idea, Mary, but how are you going to put it into action?”**

Step 5. Plan the decision. Putting the idea into action requires a plan.

**3. “Good ideas, Tami and Carlos. Let’s consider the odds of the success of each of your ideas.”**

Step 4. Odds of success is Probability theory; a technique used to analyze alternatives.

**4. “Now that we understand the problem, let’s use the brainstorming technique to solve it.”**

Step 3. Brainstorming is a technique used to generate creative and innovative alternatives.

**5. “Eddie, is the machine still jamming, or has it stopped?”**

Step 6. The manager is monitoring/controlling by checking to see if the problem is solved.

**6. “I don’t understand what we are trying to accomplish here, Raj.”**

Step 2. The objective is not clear.

**Applying the Concept 4-2: Classify the Problem**

Classify the problem in each statement according to the structure and condition under which the decision must be made.

A. Programmed, certainty

B. Programmed, uncertainty

C. Programmed, risk

D. Non-programmed, certainty

E. Non-programmed, uncertainty

F. Non-programmed, risk

**7. Aden has to decide if he should invest in a new company in a brand-new industry.**

E. Non-programmed, uncertainty. This is a first-time decision. With a new business, it is very difficult to determine the chances of success. Non-programmed, risk (f) is also a good answer because it is difficult to draw a clear line between risk and uncertainty.

**8. Tinna, a manager in a department with high turnover, must hire a new employee.**

C. Programmed, risk. This is a recurring situation--high turnover. When hiring new employees, there is a chance that the new hires will not work out.

**9. When Sean graduates from college, he will buy an existing business rather than work for someone else.**

F. Non-programmed, risk. This is a significant, non-routine decision. With an established business, there is financial information that gives a probability of success. However, there is always the chance that the past will not repeat itself.

**10. Ron is making a routine decision, but being new, he has no idea what the outcome will be.**

B. Programmed, uncertainty. This is not common, but is an example because it does indirectly state programmed and uncertainty in the statement.

**11. Sam, a small business owner, has had a turnaround in business; it’s now profitable. She wants to keep the excess cash liquid so that she can get it quickly if she needs it. How should she invest it?**

D. Non-programmed, certainty. This is a first-time decision. To keep the money liquid, she must go with a savings account, certificate of deposit, or money market type of investment with a set rate of interest.

**12. Erica, a purchasing agent, must select new cars for the business. This is the fifth time in five years she has made this decision.**

A. Programmed, certainty. This is a recurring decision. With a new car you get a warranty, which makes the investment relatively certain that the car will do the job.

**Applying the Concept 4-3: Using Groups to Generate Alternatives**

Identify the most appropriate group technique for generating alternatives in each situation.

A. Brainstorming

B. Synectics

C. Nominal grouping

D. Consensus mapping

E. Delphi technique

**13. Management wants to expand the business by offering a new product but doesn’t know what to offer.**

A. Brainstorming. The group may come up with some creative ideas that might be good innovations.

**14. Management wants to project future trends in the social media industry as part of its long-range planning.**

E. Delphi technique. Projecting future trends calls for a forecasting technique.

**15. Management at a video game maker wants to develop a new game. It calls in a consultant, who is leading groups of employees and children to come up with ideas together.**

B. Synectics. Developing new video game requires generating novel ideas.

**16. A department is suffering from morale problems, and the manager doesn’t know why or how to improve morale.**

D. Consensus mapping. Using consensus mapping to get group agreement on a solution to their morale problem would be ideal in this situation.

**17. A department is getting new computers, and everyone has to get the same type: either desktop, laptop, or tablet. The manager doesn’t know which type to select for her 25 employees.**

C. Nominal grouping. A voting technique would work fine for selecting computers with a large group.

**Applying the Concept 4-4: Selecting Quantitative Methods**

Select the appropriate quantitative method to use in each situation.

A. Break-even analysis

B. Capital budgeting

C. Linear programming

D. Queuing theory

E. Probability theory

**180. The Burger King manager Tania wants to even the workload in her fast-food restaurant. At times, employees hang around with no customers to wait on; at other times, they have long waiting lines.**

D. Queuing theory. In a fast-food restaurant, when employees are overworked, there are lines of people waiting. When there are no lines, they are idle. Queuing theory would help the restaurant balance these two.

**19. Taylor Rentals Matthew wants to know how many times a bounce house will have to be rented out to recoup the expense of adding it to the rental list.**

A. Break-even analysis. If the owner pays $1,000 and rents them for $200, it takes five rentals to break even. To make it worthwhile to add a bounce house to the rental list, it would take more than five rentals to make a profit.

**20. The machine shop manager Henry is scheduling which products to make on which machines next week.**

C. Linear programming. The manager is trying to maximize the use of limited resources.

**21. Kandeeda, a lawn care services sole owner/operator, must decide whether to repair her old truck or to replace it with a new one.**

B. Capital budgeting. A truck for Kandeedais major capital equipment, and this is a fix or replacement of asset.

**22. Shawn wants to invest money in commodities futures to make a profit.**

E. Probability theory. Investments are usually made under the condition of high risk, especially in commodities. A simple technique is to assign probability of the investments going up or down, such as 50% or 85%.