**Question 1**

A business focusing on increasing the efficiency of its operations is more directly addressing:

Select one:

a. Consistent Quality

b. Low-Cost

c. Variety

d. Volume Flexibility

**Question 2**

Question text

CD players are produced on an automated assembly line process. The standard cost of CD players is $155 per unit (labor, $30; materials, $75; overhead, $50). The sales price is $300 per unit. To achieve a 15% multifactor productivity improvement by **reducing materials costs only**, by what percentage must these costs be reduced?

Select one:

a. 20%

b. 42%

c. 35%

d. 27%

**Question 3**

Question text

Competitive priorities define the dimensions on which companies should excel in producing their products or services. Which one of the following statements is TRUE?

Select one:

a. It is impossible for a firm to improve cost and quality simultaneously.

b. A firm offering little customization cannot compete simultaneously on the dimension of consistent quality.

c. A firm that competes on the dimension of volume flexibility is more likely to manufacture products that experience a seasonal demand variation.

d. A firm that competes on the dimension of customization tends to have operating systems that are inflexible.

**Question 4**

Question text

Which of the following statements about manufacturing and service processes is FALSE?

Select one:

a. Manufacturing processes usually have long response times compared to service processes.

b. At the process level, it is much easier to distinguish whether the process is providing a service or manufacturing a product.

c. Manufacturing processes tend to be capital intensive, while service processes tend to be more labor intensive

d. Quality is more easily measured in a service process than in a manufacturing process.

**Question 5**

Question text

Which of the following statements about the decision theory is true?

Select one:

a. If the payoff table contains expenses instead of revenues, then the pessimistic criterion is Minimin.

b. If a new alternative is added to a payoff table and the maximax criterion is applied again, the new decision must either remain with the original maximax alternative or the new alternative.

c. Maximax is a decision rule for the pessimist.

d. By definition, the maximax and maximin criteria cannot result in the selection of a common alternative in decision making under uncertainty.

**Question 6**

Question text

Zipco is in serious negotiations to purchase a chunking machine that will enable them to perform their own chunking at $1.25 per unit. They currently have their chunking outsourced at a cost of $1.75 per unit and a fixed cost of $48,000. Their marketing team feels that they can sustain an annual volume of 15,000 units. What is the maximum fixed cost that Zipco should be willing to bear in order to perform their own chunking?

Select one:

a. $52,500

b. $55,500

c. $50,000

d. $57,500

**Question 7**

Question text

California Manufacturing, Inc. is now evaluating three new product ideas, and management has decided to apply the preference matrix method. The following table shows five criteria with different weights and individual scores of each product idea. If management has established a threshold of 830, which product(s) should be accepted for further development?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   |   |   |   | **Product Score** |
| **Performance Criterion** | **Weight** | **A** | **B** | **C** |
| Market Potential |   | 40 | 10 | 8 | 9 |
| Profitability |   | 30 | 8 | 9 | 10 |
| Operations Compatibility | 15 | 8 | 10 | 6 |
| Investment Requirements | 10 | 7 | 6 | 5 |
| Risks |   |   | 5 | 7 | 8 | 5 |

Select one:

a. Products B and C

b. Products A and C

c. Products A and B

d. All three products

**Question 8**

Question text

When using decision tree analysis:

Select one:

a. round nodes represent decision points.

b. there must be more square nodes than round nodes.

c. probabilities for all branches leaving a chance node must sum to 1.0.

d. the sum of the expected payoffs must always equal zero.

**Question 9**

Question text

The following information has been gathered for a project:

|  |  |  |
| --- | --- | --- |
|   |   | **TIME ESTIMATES (DAYS)** |
| **Activity** | **Immediate Predecessor(s)** | **Most Optimistic** | **MostLikely** | **Most Pessimistic** |
| **A** | ---- | 6 | 9 | 12 |
| **B** | ---- | 4 | 8 | 12 |
| **C** | A | 5 | 6 | 7 |
| **D** | A | 3 | 5 | 7 |
| **E** | B,D | 4 | 7 | 10 |

What is the expected completion time of the project?

Select one:

a. 35

b. 21

c. 28

d. 15

**Question 10**

Question text

What is the probability of completing the project given in Question 9 in 23 days, using the critical path?

Select one:

a. greater than 75% but less than or equal to 85%

b. less than or equal to 75%

c. greater than 85% but less than or equal to 95%

d. greater than 95%

**Question 11**

Question text

Which one of the following statements about planning projects is FALSE?

Select one:

a. The earliest start time for an activity is equal to the smallest earliest finish time of all of its immediate predecessors.

b. A project manager should stop crashing a project if the time budget has been met or if the crash costs have exceeded the savings in indirect and penalty costs.

c. The project's objective statement should contain scope, time frame, and allocated resources.

d. In an activity-on-node [AON] network, the nodes represent activities, whereas the arcs represent precedence relationships.

**Question 12**

Question text

You are responsible for managing a project with the following activities. What is the minimum crashing cost to finish the project in 18 days?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Activity | Predecessor | Normal Time (days) | Maximum Crash Time (days) | Crashing Cost/day |
| A | -- | 5 | 1 | $200 |
| B | -- | 7 | 1 | $500 |
| C | -- | 5 | 1 | $200 |
| D | A | 10 | 2 | $300 |
| E | B | 6 | 1 | $400 |
| F | A, C | 7 | 2 | $650 |
| G | B | 4 | 1 | $500 |
| H | E, D, G | 6 | 1 | $350 |

Select one:

a. $1,150

b. $1,500

c. $3,450

d. $850

**Question 13**

Question text

Which one of the following statements is best about process management?

Select one:

a. The traditional relationship between capital intensity and resource flexibility is that if one is high, so is the other.

b. When customization must be high, equipment should be general purpose, and employees need to perform a broader range of duties.

c. Economies of scope mean that a process should be devoted to a single product or service to achieve high volumes.

d. Creating a more capital-intensive process tends to reduce the fixed cost and raise the variable unit cost.

**Question 14**

Question text

A firm that chooses to compete based on delivery speed and variety would most likely have:

Select one:

a. an assemble-to-order production and inventory strategy.

b. a make-to-stock production and inventory strategy.

c. an engineer-to-order production and inventory strategy.

d. a make-to-order production and inventory strategy.

**Question 15**

Question text

A politician conducting a town hall meeting is an example of:

Select one:

a. passive contact

b. hybrid office

c. active contact

d. back office

**Question 16**

Question text

Which of the following statements concerning resource flexibility is best?

Select one:

a. Investment in general-purpose equipment is warranted if the firm expects to sell more than the break-even amount.

b. Flexible equipment is useful to companies with low production volumes and high customization.

c. Resource flexibility is crucial for line-flow processing.

d. Manufacturing efficiency increases with general-purpose equipment.

**Question 17**

Question text

If a process under analysis is extensive and cuts across several departmental lines, it may benefit from forming a(n):

Select one:

a. brainstorming team

b. benchmarking team

c. steering team

d. implementation team

**Question 18**

Question text

An effective tool for showing steps of a service process when the business process spans multiple department boundaries is a:

Select one:

a. swim lane flowchart

b. check list

c. check sheet

d. service blueprint

**Question 19**

Question text

Which one of the following techniques will help management trace customer complaints directly to the process involved?

Select one:

a. specification management

b. quality circles

c. cause-and-effect diagram

d. quality engineering

**Question 20**

Question text

When managing processes, it is vital that:

Select one:

a. design teams are allowed to function creatively and set their own charter.

b. the organization is not satisfied unless fundamental reengineering changes are made.

c. design teams are not held accountable since their involvement ends once the new process rolls out.

d. attention is paid to competitive priorities and strategic fit.