

MIDTERM EXAMINATION

Spring 2009

MGT613- Production / Operations Management (Session - 1)

Question No: 1 (Marks: 1) - Please choose one

A business process is a logical set of tasks or activities that:

Are specific to the operations function

Are specific to the marketing function

Are interdependent with other processes

Have exactly the same performance measures for any process

Question No: 2 (Marks: 1) - Please choose one

Which one of the following formulae can be used to compute value?

$(\text{Quality} + \text{Speed} - \text{Flexibility}) / \text{Cost}$

$(\text{Quality} + \text{Speed} + \text{Flexibility}) / \text{Cost}$

$(\text{Quality} + \text{Speed} - \text{Cost}) / \text{Flexibility}$

$(\text{Quality} + \text{Speed} + \text{Cost}) / \text{Flexibility}$

Question No: 3 (Marks: 1) - Please choose one

Which of the following is referred to as plans for achieving goals?

Rules

Strategies

Policies

Mission

Question No: 4 (Marks: 1) - Please choose one

Which of the following statements corresponds to an order-winning characteristic?

A factor which may be significant in other parts of the organization

A factor which gives an organization a competitive edge

A factor which serves as a minimum standard for purchase

A factor which increases the profitability of the organization

Question No: 5 (Marks: 1) - Please choose one

To make operations strategy effective it should be:

Independent of the organization's strategy

Consistent with the organization's strategy

Developed by a first line manager

Independent of time dimension

Question No: 6 (Marks: 1) - Please choose one

Which one of the following techniques uses historical data to predict future value of a

variable of interest?

- Time series method
- Causal forecasting method
- Qualitative forecasting method
- Intuitive forecasting method

Question No: 7 (Marks: 1) - Please choose one

Which one of the following forecasting techniques uses explanatory variables to predict future demand?

Associative forecast

- Time series forecast
- Consumer survey
- Executive opinion

Question No: 8 (Marks: 1) - Please choose one

Which one of the following involves completing a series of questionnaires each developed from the previous one, to achieve a consensus forecast?

- Consumer surveys
- Executive opinion
- Time series forecast

Delphi method

Question No: 9 (Marks: 1) - Please choose one

In which one of the following situations, the use of a decision tree is required instead of a payoff table?

- When there are more than three states of nature
- When there are more than three decision payoffs
- When the decision situation encompasses an extended time period
- When a series of decisions is required

Question No: 10 (Marks: 1) - Please choose one

Which one of the following is an outcome of Maximin criterion?

The best of the worst possible payoff

- The best possible payoff
- The best average payoff
- The least of the worst regrets

Question No: 11 (Marks: 1) - Please choose one

Given the table:

Possible Alternatives future demand

Low (Rs.) High (Rs.)

Small facility 10,000 8,000
Medium facility 12,000 20,000
Large facility 18,000 15,000

Which one of the following is the correct payoff under LAPLACE approach?

Rs. 9,000
Rs. 16,000
Rs. 33,000
Rs. 16,500

Question No: 12 (Marks: 1) - Please choose one

Which one of the following is called as the difference between designed and utilized capacity?

Design capacity
Effective capacity
Buffer capacity
Utilization rate

Question No: 13 (Marks: 1) - Please choose one

Which one of the following mathematical expressions is used to compute utilization?

Actual output / effective capacity
Actual output / design capacity
Actual output + effective capacity
Actual output - design capacity

Question No: 14 (Marks: 1) - Please choose one

Which of the following terms of financial analysis are important for the organization to proceed with a capacity alternative decision?

Cash flow and fixed cost
Present value and fixed cost
Cash flow and present value
Cash flow and profit

Question No: 15 (Marks: 1) - Please choose one

Which one of the following is the first step in line balancing?

Specify the sequential relationship among tasks.
Determine the required cycle time. P--85
Determine the minimum number of workstations.
Determine the desired output

Question No: 16 (Marks: 1) - Please choose one

Which one of the following layout types is associated with car assembly?

Fixed position layout

Process layout

Product layout

Hybrid layout

Question No: 17 (Marks: 1) - Please choose one

What would be the required cycle time for a process that operates 9 hours daily with a desired output of 300 units per day?

0.03 minutes

1.8 minutes

2700 minutes

291 minutes

Question No: 18 (Marks: 1) - Please choose one

What would be the output capacity if an assembly line operates for 7 hours per day with a cycle time of 2.0 minutes?

210 units per day

3.5 units per day

0.004 units per day

14 units per day

Question No: 19 (Marks: 1) - Please choose one

Which of the following probability distribution is used most extensively in dealing with forecasting errors?

Normal

Exponential

Beta

Pareto

Question No: 20 (Marks: 1) - Please choose one

Which of the following takes into consideration the design of aesthetics of the product?

Functional design

Production design

Service design

Product design

Question No: 21 (Marks: 1) - Please choose one

Which of the following factors are considered in product and service design?

Customer satisfaction, quality, and improvement costs

Employee motivation, quality, and production costs

Customer satisfaction, flexibility, and production costs

Customer satisfaction, quality, and production costs

Question No: 22 (Marks: 1) - Please choose one

An automatic car wash is an example of which of the following?

Customized service

Batch processing

Intermittent processing

Standardized service

Question No: 23 (Marks: 1) - Please choose one

Which of the following is an advantage of standardization?

Frozen designs

Customized parts

Interchangeable parts

Reduced variety

Question No: 24 (Marks: 1) - Please choose one

Which one of the following is the most significant disadvantage of standardization?

Reduced design costs

Interchangeable parts

Reduced variety

Customized parts

Question No: 25 (Marks: 1) - Please choose one

Product life cycle is based on which of the following components?

Place

Demand

Supply

Price

Question No: 26 (Marks: 1) - Please choose one

Which one of the following is the final stage of product life cycle?

Growth

Decline

Maturity

Planning

Question No: 27 (Marks: 1) - Please choose one

Which one of the following statements relates to the final stage of product life cycle?

Improve reliability, and reduce production costs

Improve packaging, and reliability

Improve reliability, and reduce quality

Improve reliability, and reduce promotion costs

Question No: 28 (Marks: 1) - Please choose one

Which of the following refers to translate the voice of the customer into technical design requirements?

- Concurrent design
- Design for manufacture
- Robust design
- Quality functional deployment

Question No: 29 (Marks: 1) - Please choose one

Which one of the following is correct about the range of availability on a measuring index?

- 0.1 to 1.0
- 0 to 1.0
- 0.5 to 1.0
- 0.01 to 1.0

Question No: 30 (Marks: 1) - Please choose one

What would be the availability if a carpenter is expected to be able to operate for 250 hours between repairs, and the mean repair time is expected to be 3 hours?

- 1.01
- 5.03
- 3.0
- 0.98

Question No: 31 (Marks: 1) - Please choose one

Capacity planning involves answering all of the following questions EXCEPT:

- What kind of capacity is needed?
- How much is needed?
- When is it needed?

Who is going to decide? P--64

Question No: 32 (Marks: 1) - Please choose one

The disadvantages of specialization to management include all of the following EXCEPT:

- More absenteeism
- Minimum responsibility
- More turnover
- More difficult to teach the job

Question No: 33 (Marks: 1) - Please choose one

Which one of the following refers to a team having representatives from different functional areas of the organization?

Traditional work group
Self-directed team
Cross-functional team
Self motivated team

Question No: 34 (Marks: 1) - Please choose one

Which one of the following refers to the length of time needed to complete a job?

Work sampling methods
Work measurement p--93
Job design
Methods analysis

Question No: 35 (Marks: 1) - Please choose one

Which one of the following location strategies follows a decentralized approach?

Process plant strategy
Market area plant strategy
Cost conservation strategy

Question No: 36 (Marks: 1) - Please choose one

Which one of the following location strategies is favored by automobile manufacturers?

Product plant strategy
Process plant strategy
Market area plant strategy
Cost conservation strategy

Question No: 37 (Marks: 1) - Please choose one

Which of the following refers to bringing together engineering design and manufacturing personnel early in the design phase.

Reverse engineering
Concurrent engineering
Manufacturability
Serviceability

Question No: 38 (Marks: 1) - Please choose one

Which of the following is the primary input in capacity planning?

Supply chain capabilities
Competitors' strengths
Demand forecasts
Overall cost estimates

Question No: 39 (Marks: 1) - Please choose one

Which of the following **best** describes the concept of the value chain?

The step-wise increases in product prices as raw materials are turned into goods/services

Adding financial value to an organization through the acquisition of other firms

A sequence of activities that involve movement of materials in a production facility

All steps in the transformation process that add value even if they don't come from manufacturing

Question No: 40 (Marks: 1) - Please choose one

The Strategies which are more focused on maintaining or improving the quality of an organization's products or services are known as:

Quality at the source

Time based strategies

Cost leadership strategies

Quality-based strategies

Question No: 41 (Marks: 5)

What are some of the reasons that do not favor the use of process layout?

Question No: 42 (Marks: 5)

Do you perceive that operation management and operation research are the same concepts?

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