



Areba Minch University
College of Business and Economics
Department of Management
Operational Management Assignment for Distance Students

Name _____

ID.No. _____

Center _____

Batch _____

Department _____

Signature: _____

INSTRUCTIONS

- ✓ This assignment is to be completed and send to the University for Evaluation. Its maximum weight is 30%
- ✓ Do not try to complete the assignment until you have covered all the lessons and reviewed the study guide and your exercises and activities.
- ✓ Replication from other will result total cancellation of your marks
- ✓ After successfully completing this assignment, be certain to write your name, ID.No and address on the cover page of your assignment.

Part I: Choose the Correct Answer from the Given Alternatives (1 pt.) Each

1. Operations management is responsible for _____, which should be a thoughtful progression from one step to another.
A. A plan of work
B. Market share
C. Profit
D. Public service objectives
2. One of the most important functions of the OM system is _____. Raw materials and components have lower utility (for customers) before this function is employed.
A. Transformation
B. Translation
C. Creation
D. Production
3. The systems approach
A. Provides better solutions
B. Is superior to the functional field approach
C. Provides better problem-solving for complex situations
D. All of the above

4. Which of the following statements concerning manufacturing and service organizations is generally true?
 - A. A service facility is more likely to serve national or even international markets
 - B. Manufacturing organizations generally find it more difficult to match capacity with demand
 - C. In many service organizations customers themselves are inputs to the transformation processes
 - D. Most service organizations can buffer themselves against uncertain demand by creating inventories and smoothing output levels
5. Which one of the following statements is more of a general characteristic of a service organization, as compared to a manufacturing organization?
 - A. Output can be inventoried.
 - B. The response time is longer.
 - C. There is less customer contact.
 - D. The facilities tend to be smaller
 - E. None
6. The framework for carrying out all of an organization's functions is:
 - A. Competitive priority
 - B. Corporate strategy
 - C. the market analysis
 - D. Organizational design
 - E. All
7. When developing the operations strategy one of the most important considerations is that it:
 - A. Requires minimal capital investment
 - B. Utilises as much automation as possible
 - C. Utilises an equal balance of labour and automation
 - D. Supports the overall competitive strategy of the company
8. A order qualifying characteristic could be described as
 - A. A factor which significantly contributes to winning business
 - B. A factor which may be of significance in other parts of the organisation
 - C. A factor which is at a higher level than the standard for the industry
 - D. A factor which has to achieve a particular level to be considered by the customer
9. Which of the following is an indirect benefit of improved quality?
 - A. Improved image
 - B. Reduced cost of inspection
 - C. Reduced scrap
 - D. Reduced inventory
10. The maximum designed service capacity or output rate is known as?
 - A. Capacity cushion
 - B. Bottleneck operation
 - C. Effective capacity
 - D. Design capacity
 - E. Both C and D

Part II: Write ‘True’ If the Statement Is Correct & ‘False’ If the Statement Is Incorrect on the Provided Space (1 pt.) Each.

1. Production and operations management is linked to all other managerial functions in the organization and is applicable to both manufacturing and services.
2. The relevance of service to customers is of decreasing importance as part of the total package that the manufacturer must deliver.
3. OM uses innovation to design processes which may be new or adapted from old systems using incremental changes to improve performance. The process design aspect of P/OM must be entirely independent of product design.
4. A large number of new products fail. That means that new product projects are at fault. New product development projects are marketing driven and are not the responsibility of production and operations managers.
5. Manufacturing processes usually have long response times compared to service processes.
6. Contact with the customer is usually higher in a manufacturing process than in a service process.
7. Companies that compete based on *flexibility* often cannot compete based on *cost*
8. The design of products and services is separate and distinct from the design of processes and they should be treated quite independently
9. Layout is an exterior design problem that strongly interacts with structure and specific site selection and equipment choice.
10. Operations management views the measurement of productivity as essential for assessing the performance of an organization’s productive capacity over a specific time period and in comparison to the competition.

Part III: Write a detail explanation about the following Operational Management concepts.

1. Quality Function Deployment (QFD) or “House of Quality” (2.5 Points)
2. List and briefly describe five differences between services and manufacturing. Provide examples to illustrate your arguments. (2.5 Points)

Part IV: Calculation

1. ETATA construction company looks for a temporary site for a plant to supply aggregate to four existing construction sites, Chamo, Abaya, Lemate and Kulefo. The location of the existing sites and the loads to be delivered to each site are as follows

Site	Coordinates (X and Y)	Load from new plant
Chamo	(200,200)	75
Abaya	(100,500)	105
Lemate	(250,600)	135
Kulefo	(500,300)	65

- a) Find the best site for the plant and its coordinates using the center of gravity approach. (5 pts)