

Name: _____ Date: _____

1. Operations managers are responsible for managing the resources that produce goods, provide services or both.
 - A) True
 - B) False

2. Productivity is defined as the ratio of output to input.
 - A) True
 - B) False

3. Forecasts for groups of items tend to be less accurate than forecasts for individual items because forecasts for individual items don't include as many influencing factors.
 - A) True
 - B) False

4. Product or service design is a major factor in customer satisfaction, product or service quality, production costs, and competitive advantage.
 - A) True
 - B) False

5. If the unit cost to buy something is less than the variable cost to make it, the decision to make or buy is based solely on the fixed costs.
 - A) True
 - B) False

6. The three primary functions that exist in most business organizations are:
 - A) manufacturing, production, and operations
 - B) operations, marketing, and finance
 - C) operations, accounting, and marketing
 - D) operations, production, and finance
 - E) none of the above

7. Which of the following is not a type of operations?
 - A) goods production
 - B) storage/transportation
 - C) entertainment
 - D) communication
 - E) none of the above

8. Scheduling personnel is an example of an operations management:
- A) mission implementation
 - B) operational decision
 - C) organizational strategy
 - D) functional strategy
 - E) tactical decision
9. Productivity is expressed as:
- A) output plus input
 - B) output minus input
 - C) output times input
 - D) output divided by input
 - E) input divided by output

Use the following to answer questions 10-13:

The business analyst for Video Sales, Inc. wants to forecast this year's demand for VCR's based on the following historical data:

TIME PERIOD	DEMAND
5 years ago	900
4 years ago	700
3 years ago	600
2 years ago	500
Last year	300

10. What is the forecast for this year using the naive approach?
- A) 163
 - B) 180
 - C) 300
 - D) 420
 - E) 510
11. What is the forecast for this year using a three-year weighted moving average with weights of .5, .3, and .2?
- A) 163
 - B) 180
 - C) 300
 - D) 420
 - E) 510

12. What is the forecast for this year using exponential smoothing with $\alpha = .4$, if the forecast for TWO years ago was 750?
- A) 163
 - B) 180
 - C) 300
 - D) 420
 - E) 510
13. What is the forecast for this year using the least squares trend line for these data?
- A) 163
 - B) 180
 - C) 300
 - D) 420
 - E) 510
14. Which of these factors affects productivity?
- A) methods and technology
 - B) workers
 - C) management
 - D) a and b only
 - E) all of the above
15. Which of the following is not a key step toward improving productivity?
- A) develop productivity measures for all operations
 - B) improve the bottleneck operations
 - C) establish reasonable goals for improvement
 - D) consider incentives to reward workers
 - E) all are steps
16. Forecasts:
- A) become more accurate with longer time horizons
 - B) are more accurate for individual items than for groups of items
 - C) are rarely perfect
 - D) all of the above
 - E) none of the above

17. A managerial approach toward forecasting which seeks to actively influence demand is:
- A) reactive
 - B) proactive
 - C) influential
 - D) protracted
 - E) retroactive
18. Minimizing the sum of the squared deviations around the line is called:
- A) mean squared error technique
 - B) mean absolute deviation
 - C) double smoothing
 - D) least squares line
 - E) predictor regression
19. Accuracy in forecasting can be measured by:
- A) MSE
 - B) MRP
 - C) MAPE
 - D) MTM
 - E) A & C
20. Given forecast errors of -5, -10, and +15, the MAD is:
- A) 0
 - B) 10
 - C) 30
 - D) 175
 - E) none of these
21. One of these is not a characteristic of a well-designed service system:
- A) User friendly
 - B) Robust
 - C) Distributed computer networks
 - D) Cost effective
 - E) Easy to sustain
22. Ideas for new or improved designs can come from:
- A) customers
 - B) competitors
 - C) research and development departments
 - D) production departments
 - E) all of the above

23. One way to increase reliability is to:
- A) improve component design
 - B) increase the number of service station
 - C) increase mean repair time
 - D) increase the number of dependent components
 - E) none of the above
24. Which of the following is not a stage in the life cycle of products and services?
- A) incubation
 - B) growth
 - C) adolescence
 - D) saturation
 - E) decline
25. The structural approach for integrating customer requirements into every aspect of product development is known as:
- A) total quality management
 - B) customer satisfaction
 - C) quality function deployment
 - D) customer integration
 - E) a product development team
26. The process of dismantling and inspecting a competitor's new or revised product for the purpose of gleaning design ideas is called:
- A) design by imitation
 - B) product analysis
 - C) reverse engineering
 - D) benchmarking
 - E) none of the above
27. The advantages of standardization include which of the following?
- I. Early freezing of designs
 - II. Fewer parts to deal with in inventory
 - III. Reduced training cost and time
 - IV. Purchasing is more routine
- A) I, II
 - B) I, IV
 - C) I, II, III
 - D) II, III, IV
 - E) I, II, III, IV

28. Capacity decisions are important for which of the following reasons?

- I. impact on ability to meet future requirements
 - II. quantitative techniques are available to use
 - III. the initial cost of capacity
 - IV. the relationship between capacity and operating cost
- A) I and III
 - B) I, II, and III
 - C) II and IV
 - D) I, III, and IV
 - E) I, II, III, and IV

Use the following to answer questions 29-33:

The owner of Firewood To Go is considering buying a hydraulic wood splitter which sells for \$50,000. He figures it will cost an additional \$100 per cord to purchase and split wood with this machine, while he can sell each cord of split wood for \$125.

29. What would the potential profit be if he were to split 4,000 cords of wood with this machine?

- A) \$0
- B) \$200,000
- C) \$100,000
- D) \$75,000
- E) \$50,000

30. How many cords of wood would he have to split with this machine to make a profit of \$30,000?

- A) 3,200
- B) 1,500
- C) 2,000
- D) 1,000
- E) 500

31. How many cords of wood would he have to split with this machine to break even?

- A) 5,000
- B) 3,000
- C) 2,000
- D) 1,000
- E) 0

32. If, for this machine, design capacity is 50 cords per day, effective capacity is 40 cords per day, and actual output is anticipated to be 35 cords per day, what would be its utilization?
- A) 100%
 - B) 80%
 - C) 75%
 - D) 70%
 - E) 0%
33. If, for this machine, design capacity is 50 cords per day, effective capacity is 40 cords per day, and actual output is expected to be 32 cords per day, what would be its efficiency?
- A) 100%
 - B) 80%
 - C) 75%
 - D) 70%
 - E) 0%
34. Given the following information, the efficiency is:
- Effective capacity = 80 units per day
Design capacity = 100 units per day
Utilization = 48%
- A) 20%
 - B) 35%
 - C) 48%
 - D) 60%
 - E) 80%
35. At the break-even point:
- A) output equals capacity
 - B) total cost equals total revenue
 - C) total cost equals profit
 - D) variable cost equals fixed cost
 - E) variable cost equals total revenue