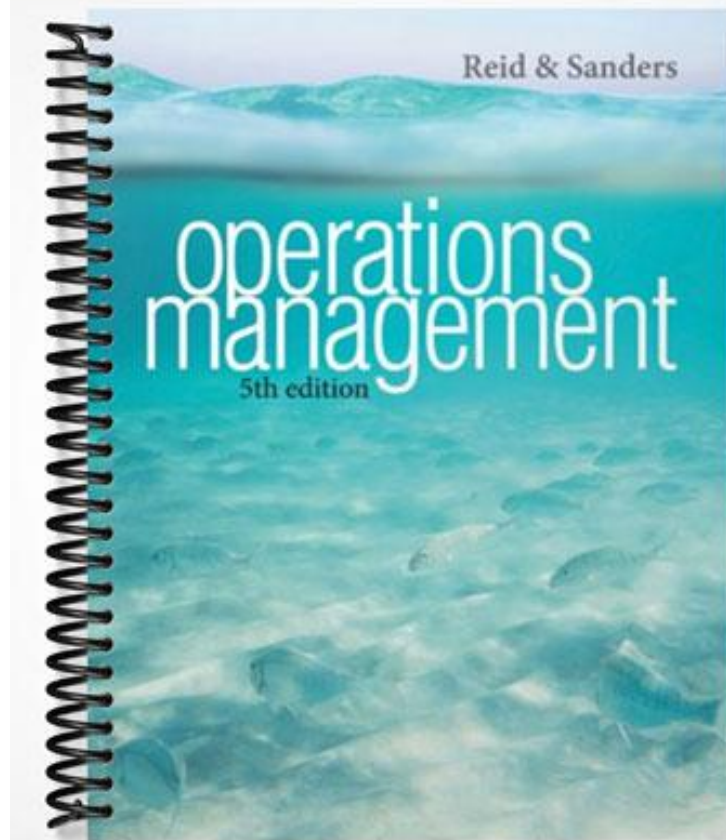Reid & Sanders

operations
management

5th edition

Multiple Choice

1. What are the two key components of the operations strategy of Federal Express?
a) they own their own fleet of tractor trailers, and they use a sophisticated bar code technology
b) they own their own fleet of tractor trailers, and they have a large warehouse in every state
c) they own their own fleet of airplanes, and they have a large warehouse in every state
d) they use a sophisticated bar code technology, and they have a large warehouse in every state
e) they own their own fleet of airplanes, and they use a sophisticated bar code technology

Ans: e
Section Ref: The Role of Operations Strategy
Level: moderate

2. Operational efficiency is:
a) driving the business strategy
b) ensuring the right tasks are performed
c) decreasing the firm's input requirements
d) increasing the firm's output
e) performing operations tasks well

Ans: e
Section Ref: The Role of Operations Strategy
Level: moderate

3. During the 1970s and 1980s, firms from which country provided the **most** serious competitive threat to U.S. companies?
a) Germany
b) Canada
c) Mexico
d) Japan
e) United Kingdom

Ans: d
Section Ref: The Role of Operations Strategy
Level: moderate

4. The process of monitoring the external environment is called what?
a) environmental examination
b) environmental inspection
c) environmental scrutiny
d) environmental perusal
e) environmental scanning

Ans: e
Section Ref: The Role of Operations Strategy
Level: easy

5. Which of the following would **not** be considered a core competency that a company might have?
a) a highly trained workforce
b) an inefficient distribution system
c) skills in attracting and raising capital
d) use of information technology
e) quality control techniques

Ans: b
Section Ref: Developing a Business Strategy
Level: easy

6. .Environmental scanning would **not** provide information on:
a) sources of highly trained workers
b) the firm's internal inefficient distribution system
c) opportunities and threats
d) changes in information technology
e) changes in global competition

Ans: b
Section Ref: Developing a Business Strategy
Level: easy

7. Which of the following is **not** typically considered to be a core competency?
a) workforce
b) mission
c) market understanding
d) technology
e) facilities

Ans: b
Section Ref: Developing a Business Strategy
Level: moderate

8. What term describes the process of obtaining goods or services from an outside provider?
a) outproviding
b) transferization
c) outsourcing
d) subsourcing
e) supersourcing

Ans: c
Section Ref: Developing a Business Strategy
Level: easy

9. Once a business strategy has been developed:
a) service prices are established
b) competition must be identified
c) an operations strategy must be formulated
d) contracting with external sources must begin
e) insourcing will be conducted

Ans: c
Section Ref: Developing a Business Strategy
Level: easy

10. Which of the following is **not** considered one of the four broad categories of competitive priorities?
a) technology
b) cost
c) quality
d) flexibility
e) time

11. Which of the following competitive priorities typically requires the use of more general-purpose equipment?
a) technology
b) cost
c) quality
d) flexibility
e) time

12. Highly-skilled hourly workers would be **most** needed by companies employing which of the following competitive priorities?
a) location
b) cost
c) flexibility
d) development speed
e) time

13. How does Federal Express maintain its ability to compete on time during peak demand periods?
a) it subcontracts overload to other firms
b) it purchases more planes
c) overtime
d) it uses a very flexible part-time workforce
e) it purchases more vans

14. When making competitive priority decisions the firm:
a) must select the correct supply chain
b) must ensure the PWP is correctly established
c) must focus on the one competitive priority at the exclusion of all others
d) must make trade-off decisions
e) must isolate the competing internal departments

15. Empire West displays what by specializing in making a wide variety of products?
a) outsourcing
b) SCM
c) quality
d) flexibility
e) efficiency

Ans: d
Section Ref: Developing an Operations Strategy
Level: moderate

16. Order winners and qualifiers:
a) are consistent between manufacturing and service organizations
b) only matter when responding to formal competitive bid requests
c) remain constant over time
d) change over time
e) only apply to quasi-manufacturing firms

Ans: d
Section Ref: Developing an Operations Strategy
Level: hard

17. Decisions regarding which of the following are **not** part of the production process infrastructure?
a) organization of workers
b) facilities
c) worker pay
d) quality control measures
e) management policies

Ans: b
Section Ref: Developing an Operations Strategy
Level: moderate

18. Decisions regarding which of the following are **not** part of the production process structure?
a) management policies
b) facilities
c) robots
d) flow of goods and services through the facility
e) flexible manufacturing system (FMS) machines

Ans: a
Section Ref: Developing an Operations Strategy
Level: moderate

19. What are the three primary types of technology?
a) product technology, process technology, and information technology
b) product technology, process technology, and environmental technology
c) product technology, process technology, and safety technology
d) information technology, environmental technology, and safety technology
e) environmental technology, information technology, and process technology

Ans: a
Section Ref: Strategic Role of Technology
Level: easy

20. Teflon is an example of what?
a) process technology
b) information technology
c) environmental technology
d) safety technology
e) product technology

Ans: e

21. Technology should be acquired because:
a) the new technology is fun
b) the new technology keeps the employees happy
c) the new technology doesn't cost very much
d) the new technology always improves productivity
e) the new technology supports the company's chosen competitive priorities

Ans: e
Section Ref: Strategic Role of Technology
Level: easy

22. Computer-aided manufacturing is an example of what?
a) process technology
b) information technology
c) environmental technology
d) safety technology
e) product technology

Ans: a
Section Ref: Strategic Role of Technology
Level: moderate

23. Which type of technology has had the greatest impact on business?
a) process technology
b) information technology
c) environmental technology
d) safety technology
e) product technology

Ans: b
Section Ref: Strategic Role of Technology
Level: moderate

24. When does productivity increase?
a) inputs increase while outputs remain the same
b) inputs decrease while outputs remain the same
c) outputs decrease while inputs remain the same
d) inputs and outputs increase proportionally
e) none of the above

Ans: b
Section Ref: Strategic Role of Technology
Level: moderate

25. Which of the following is a valid type of "productivity measure"?
a) multi-output productivity measure
b) partial productivity measure
c) multi-part productivity measure
d) multi-component productivity measure
e) imperfect productivity measure

Ans: b
Section Ref: Productivity

26. Consider a pizza parlor. Which of the following would **not** be a valid productivity measure?
a) pizzas produced / number of workers used
b) pizzas produced / number of ovens
c) pizzas produced / cost of workers and ingredients
d) pizzas produced / cost of all inputs used
e) labor hours / pizzas produced

Ans: e
Section Ref: Productivity
Level: moderate

27. If inputs increase by 30% and outputs decrease by 15%, what is the percentage change in productivity?
a) 100% decrease
b) 11.54% increase
c) 34.62% decrease
d) 15% increase
e) 15% decrease

Ans: c
Solution: P = O / I

Section Ref: Productivity
Level: hard

28. If inputs increase by 6% and outputs increase by 24%, what is the percentage productivity increase?
a) 400.00%
b) 16.98%
c) 0.25%
d) 4.00%
e) 18.00%

Ans: b
Solution: P = O / I   1.24 / 1.06 = 1.1698   Move the decimal over two to get your percentage 16.98%
Section Ref: Productivity
Level: hard

29. An airline has determined that its baggage handlers handle 12,000 bags when 3 baggage handlers are on shift. What is the baggage handler productivity?
a) 4,000 bags/shift
b) 4,000 bags/handler
c) 14,000 bags/shift
d) 12,000 bags/shift
e) 2,000 bags/handler

Ans: b
Solution: P = O / I   12000 / 3 = 4000 bags/handler
Section Ref: Productivity
Level: hard

30. If inputs increase by 10% and outputs increase by 4%, what is the percentage productivity increase?
a) 5.45%
b) 250.00%
c) - 5.45%
d) 5.77%

e) - 5.77%

31. If inputs increase by 10% and outputs increase by 5%, what is the percentage change in productivity?
a) 4.545% decrease
b) 4.545% increase
c) 4.762% increase
d) 4.762% decrease
e) 50.000% increase

32. If Joe's Diner serves 150 meals in one day using 3 kitchen staff, what is the kitchen staff daily productivity?
a) 40 meals/staff
b) 45 meals/staff
c) 50 meals/staff
d) 55 meals/staff
e) 60 meals/staff

33. If inputs increase by 30% and outputs increase by 15%, what is the percentage change in productivity?
a) 50.00% decrease
b) 88.46% increase
c) 88.46% decrease
d) 11.54% increase
e) 11.54% decrease

34. Suppose that on Monday the cost of inputs sums to $1000, and the value of outputs sums to $4000. For which of the following values on Tuesday would productivity increase?
a) inputs = $1100, outputs = $4000
b) inputs = $1100, outputs = $4200
c) inputs = $850, outputs = $3600
d) inputs = $1000, outputs = $3900
e) inputs = $2000, outputs = $8000

Solution: Calculate the P= O/I for each; c is the only one higher than Monday.
3600 / 850 = 4.23
Section Ref: Productivity
Level: moderate

35. Suppose that a plant has a daily productivity of 200 parts per employee? What can we conclude?
a) the daily productivity is excellent
b) the plant can hire more workers and still earn profits
c) the plant is not earning profits
d) the plant must be highly automated
e) nothing

Ans: e
Section Ref: Productivity
Level: moderate

36. Suppose that a plant has a daily productivity of 0.85 parts per employee? What can we conclude?
a) the plant must be very labor-intensive
b) the plant is not earning profits
c) the plant must be highly automated
d) the plant should lay off workers
e) nothing

Ans: e
Section Ref: Productivity
Level: moderate

37. Suppose that a plant has a total productivity measure of 0.85. What can we conclude?
a) the plant is not earning profits
b) nothing
c) the plant should lay off workers
d) the plant is highly automated
e) the daily productivity is excellent

Ans: a
Section Ref: Productivity
Level: moderate

38. Suppose that last month the cost of inputs summed to $100,000, and the value of outputs summed to $800,000.
For which of the following values this month would productivity increase?
a) inputs = $110,000, outputs = $800,000
b) inputs = $50,000, outputs = $400,000
c) inputs = $200,000, outputs = $1,600,000
d) inputs = $100,000, outputs = $820,000
e) inputs = $300,000, outputs = $1,600,000

Ans: d
Solution: Calculate the P= O/I for each; d is the only one higher than last month. 820,000 / 100,000 = 8

Section Ref: Productivity
Level: moderate

39. Suppose that in week 1 a company produced 1000 units using 60 labor hours. For which of the following values
in week 2 would labor productivity decrease?
a) units = 2000, hours = 120
b) units = 1500, hours = 95

c) units = 1000, hours = 58
d) units = 500, hours = 30
e) units = 2000, hours = 100

Ans: b
Solution: Calculate the P= O/I for each; b has the lowest productivity.
1500 / 95 = 15.79
Section Ref: Productivity
Level: moderate

40. Suppose that on Wednesday the cost of inputs summed to $4000, and the value of outputs summed to $10,000. For which of the following values on Thursday will productivity stay the same?
a) inputs = $2000, outputs = $5000
b) inputs = $5000, outputs = $10,000
c) inputs = $4000, outputs = $8000
d) inputs = $10,000, outputs = $4000
e) inputs = $12,000, outputs = $40,000

Ans: a
Solution: Calculate the P= O/I for each;
5000 / 2000 = 2.5
a is the only one equal to Wednesday's.
Section Ref: Productivity
Level: moderate

41. Vericol, Inc. manufactures drugs using workers and automated machines. The firm has decided to replace two workers with a new machine, while the output per day is not expected to change. Which of the following cannot be true?
a) labor productivity will increase
b) machine productivity will decrease
c) labor productivity will decrease
d) multifactor productivity will increase
e) multifactor productivity will decrease

Ans: c
Section Ref: Productivity
Level: moderate

42. A manager has just replaced three workers with a machine that is cheaper to operate than the cost of the three replaced workers. Output is expected to remain the same. Which of the following is true?
a) labor productivity will decrease
b) machine productivity will increase
c) multifactor productivity will decrease
d) multifactor productivity will increase
e) the value of output will decrease

Ans: d
Section Ref: Productivity
Level: moderate

43. Suppose that in January a company produced 5000 units using 1000 labor hours. For which of the following values in February would labor productivity decrease?
a) units = 5000, hours = 900
b) units = 10,000, hours = 1500
c) units = 10,000, hours = 2000
d) units = 2500, hours = 500

e) units = 5000, hours = 1100

Ans: e
Solution: Calculate the P= O/I for each; e is the only one less than January. 5000 / 1100 = 4.54
Section Ref: Productivity
Level: moderate

44. Suppose that in year 1 a company produced $100 Million worth of outputs while inputs totaled $50 Million. For which of the following values in year 2 would productivity decrease?
a) outputs = $90 Million, inputs = $50 Million
b) outputs = $400 Million, inputs = $200 Million
c) outputs = $250 Million, inputs = $100 Million
d) outputs = $50 Million, inputs = $25 Million
e) outputs = $60 Million, inputs = $25 Million

Ans: a
Solution: Calculate the P= O/I for each;
90 / 50 = 1.8
a is the only one less than Year 2.
Section Ref: Productivity
Level: moderate

45. If the telecommunication company sold $10,000,000 of internet service using $50,000 of labor, $25,000 of leased bandwidth, $45,000 service fees, and $80,000 or replacement parts, what is the telecommunication multifactor productivity?
a) 35
b) 40
c) 45
d) 50
e) 55

Ans: d
Solution: 10,000,000 / 50k + 25k + 45k + 80k = 10,000,000 / 200k = 50
Section Ref: Productivity
Level: moderate

46. Suppose that on Thursday a company produced 80 units using 160 labor hours. For which of the following values on Friday would daily labor productivity increase?
a) units = 70, hours = 160
b) units = 80, hours = 180
c) units = 240, hours = 500
d) units = 160, hours = 300
e) units = 40, hours = 100

Ans: d
Solution: Calculate the P= O/I for each; d is the only one more than Thursday. 160 / 300 = .5333
Section Ref: Productivity
Level: moderate

47. A firm produces 100 units using 800 labor hours. What is its labor productivity?
a) 0.125 units/hour
b) 8 units/hour
c) 100 units/hour
d) 800 units/hour
e) -0.125 units/hour

Ans: a

Solution: 100 / 800 = .125 units / hr
Section Ref: Productivity
Level: easy

48 A firm produces 2000 products using 10 workers on an eight-hour shift. What is the labor productivity per worker?
a) 200 units/hour
b) 25 units/hour
c) 250 units/hour
d) 20 units/hour
e) 0.04 units/hour

Ans: b
Solution: 2000 / 10 = 200
= 200/8
= 25 units/hr
Section Ref: Productivity
Level: moderate

49. A machine shop produces metal frames on two different machines. The average daily production on machine 1 is 300 frames, and the average daily production on machine 2 is 180 frames. What is the daily machine productivity?
a) 480 frames/machine
b) 330 frames/machine
c) 240 frames/machine
d) 160 frames/machine
e) 300 frames/machine

Ans: c
Solution: 300 + 180 = 480   480 / 2 = 240 frames/machines
Section Ref: Productivity
Level: easy

50. A machine shop produces metal brackets on two different machines. Machine 1 can produce a bracket every 10 minutes. Machine 2 can produce a bracket every 4 minutes. What is the average productivity per machine?
a) 4.3 brackets/hour
b) 8.6 brackets/hour
c) 10.5 brackets/hour
d) 21.0 brackets/hour
e) 7.0 brackets/hour

Ans: c
Solution:
Machine 1 > 6 [6x10=1 hr]
Machine 2 > 15[4x15=1 hr]
6 + 15 = 21
= 21 / 2
= 10.5 brackets/hr
Section Ref: Productivity
Level: hard

51. A firm produces handbags using three workers. On Tuesday, Jane completed 60 bags in 6 hours, Ron completed 50 bags in 7 hours, and Mary completed 80 bags in 5 hours. What was the overall productivity of the firm?
a) 7.92 bags/hour
b) 11.05 bags/hour
c) 10.00 bags/hour

d) 10.56 bags/hour
e) 61.67 bags/hour

Ans: d
Solution:

Jane	60 bags	6 hrs
Ron	50 bags	7 hrs
Mary	80 bags	5 hrs
Total - 190 bags		18 hrs

190 / 18 = 10.56 bags/hr
Section Ref: Productivity
Level: moderate

52. Suppose that output is worth $400, and labor and materials costs are $200 and $100, respectively. What is the materials productivity?
a) 2.00
b) 1.33
c) 0.25
d) 0.75
e) 4.00

Ans: e
Solution: 400 / 100 = 4.00
Section Ref: Productivity
Level: easy

53. A firm produces 500 units per day using five workers on a five-hour shift. On average, 15% of the units produced are defective and must be scrapped. What is the labor productivity for non-defective units?
a) 17 units/hour
b) 3 units/hour
c) 20 units/hour
d) 85 units/hour
e) 15 units/hour

Ans: a
Solution:
500 per day – 15% or 75 = 425 per day
425 / 5 workers = 85   85 / 5 hr = 17 units / hr
Section Ref: Productivity
Level: moderate

54. Suppose that weekly output is worth $1000, and labor and materials costs are $300 and $200, respectively. What is the multifactor productivity ratio?
a) 1000
b) 8
c) 2
d) 3
e) 0.5

Ans: c
Solution: 1000 / 300 + 200 = 1000 / 500 = 2
Section Ref: Productivity
Level: moderate

55. Each day a firm produces 50 products worth $40 each. Raw materials cost per unit are $12. The firm uses 4 workers on an eight-hour shift earning $10 per hour each. What is the multifactor productivity ratio?
a) 1.82

b) 0.77
c) 3.16
d) 0.12
e) 2.17

Ans: e
Solution:
50 x $40 = 2000
600 [12x50] + 320 = 920
2000 / 920 = 2.17
Section Ref: Productivity
Level: moderate

56. A bakery bakes bread in two different ovens. Oven 1 can bake a loaf every 30 minutes. Oven 2 can bake a loaf every 15 minutes. What is the average productivity per oven?
a) 6.00 loaves/hour
b) 3.00 loaves/hour
c) 2.67 loaves/hour
d) 1.33 loaves/hour
e) 0.38 loaves/hour

Ans: b
Solution:
Oven 1 can bake 2 per hour
Oven 2 can bake 4 per hour
Total 6 loaves per hr / 2 ovens = 3 loaves per hour
Section Ref: Productivity
Level: hard

57. Johnny employs five painters. He collected the following data from last week.

Painter	Hours	Walls Completed	
Julius	40	60	1.5
Margaret	32	68	2.125
Dave	50	78	1.56
Suzy	36	70	1.94
Fawn	44	74	1.68

Which painter was **least** productive last week?
a) Julius
b) Margaret
c) Dave
d) Suzy
e) Fawn

Ans: a
Solution: Calculate by dividing walls completed by the hours; a is the lowest and **least** productive

Painter	Hours	Walls Completed	
Julius	40	60	1.5
Margaret	32	68	2.125
Dave	50	78	1.56
Suzy	36	70	1.94
Fawn	44	74	1.68

Section Ref: Productivity
Level: moderate

58. A bakery uses five ovens to bake muffins. Yesterday's data are provided below.

Oven	Hours	Muffins Baked	
Oven 1	5	600	120

Oven 2	10	1500	150
Oven 3	8	1280	160
Oven 4	8	800	100
Oven 5	6	780	130

Which oven was the **most** productive?
a) Oven 1
b) Oven 2
c) Oven 3
d) Oven 4
e) Oven 5

Ans: c
Solution: Calculate by dividing muffins baked by the hours; c is the highest and most productive

Oven 1	5	600	120
Oven 2	10	1500	150
Oven 3	8	1280	160
Oven 4	8	800	100
Oven 5	6	780	130

Section Ref: Productivity
Level: moderate

59. The state government utilizes five workers to stamp license plates. Last month's data are provided below.

Worker	Days Worked	Units Stamped	
Pete	30	1440	48
Tommy	20	1600	80
Laura	24	2000	83.33
Julie	28	2100	75
Susan	29	1200	41.38

Which worker was the **least** productive?
a) Pete
b) Tommy
c) Laura
d) Julie
e) Susan

Ans: e
Solution: Calculate by dividing units stamped by the days; e is the lowest and least productive

Worker	Days Worked	Units Stamped	
Pete	30	1440	48
Tommy	20	1600	80
Laura	24	2000	83.33
Julie	28	2100	75
Susan	29	1200	41.38

Section Ref: Productivity
Level: moderate

60. A firm uses five plants to produce its products. Each final product has a value of $100. The following table provides last week's output, labor hours used (at $15 per hour), and materials cost per unit.

Plant	Output	Labor Hours	Materials Cost per Unit
Plant 1	2000	400	$20
Plant 2	5000	900	$18
Plant 3	9000	2000	$20
Plant 4	1000	150	$30
Plant 5	2000	440	$18

Which plant was **most** productive last week?
a) plant 1
b) plant 2
c) plant 3
d) plant 4

e) plant 5

Ans: b
Solution
Plant 1   2000/(400x15) + (20x2000) = .043
Plant 2   5000/(900x15) + (18x2000) = .048
Plant 3   9000/(2000x15) + (20x2000) = .042
Plant 4   1000/(150x15) + (30x2000) = .031
Plant 5   2000/(440x15) + (18x2000) = .047
Section Ref: Productivity
Level: hard

61. A firm uses five plants to produce its products. Output value and total input cost for last week are provided below.

Plant 1	Output Value	Total Cost
Plant 1	$20,000	$25,000
Plant 2	$50,000	$60,000
Plant 3	$40,000	$42,000
Plant 4	$80,000	$99,000
Plant 5	$25,000	$29,000

Which plant was **least** productive last week?
a) plant 1
b) plant 2
c) plant 3
d) plant 4
e) plant 5

Ans: a
Solution:
Plant 1   20000/25000 = .800
Plant 2   50000/60000 = .833
Plant 3   40000/42000 = .952
Plant 4   80000/99000 = .808
Plant 5   25000/29000 = .862
Section Ref: Productivity
Level: moderate

62. Last week Jason painted 11 houses in 4 days. This week he painted 14 houses in 5 days. What was his percent productivity increase?
a) 1.82%
b) 1.79%
c) 27.27%
d) 25.00%
e) 5.00%

Ans: a
Solution:
11 / 4 = 2.75
14 / 5 = 2.8
2.8 / 2.75 = 1.01818 or 1.82% (remember to move the decimal over)
Section Ref: Productivity
Level: moderate

63. Last month a plant produced 10,000 units using 2000 labor hours. This month it produced 12,000 units using 3000 labor hours. What is the percent productivity decrease?
a) 200%
b) 100%

c) 50%
d) 25%
e) 20%

Ans: e
Solution:
10000 / 2000 = 5
12000 / 3000 = 4
4 /5 = .8 or 20%
Section Ref: Productivity
Level: moderate

64. On Tuesday George produced 100 units in 8 hours. On Wednesday he produced 120 units in 10 hours. What was his percent productivity change?
a) −0.50%
b) −4.17%
c) 4.17%
d) −4.00%
e) 4.00%

Ans: d
Solution:
100 / 8 = 12.5
120 / 10 = 12
12 / 12.5 = .96 or -4%
Section Ref: Productivity
Level: moderate

65. Last month Stacy sold 10 houses while working 20 days. This month she sold the same number of houses in 22 days. What is her percent productivity change?
a) 10.00%
b) − 9.09%
c)   9.09%
d) −10.00%
e) − 4.55%

Ans: b
Solution:
10 / 20 = .5
10 / 22 = .4545
.4545 / .5 = -.9090 or – 9.09%
Section Ref: Productivity
Level: moderate

66. Yesterday, John produced 100 units in 8 hours. Today he produced the same amount in 6 hours. What is his percent productivity change?
a) 33.33%
b)   0.00%
c) 25.55%
d) −25.00%
e)   4.67%

Ans: a
Solution:
100 / 8 = 12.5
100 / 6 = 16.666
16.666 / 12.5 = 1.3333 or 33.33%
Section Ref: Productivity

67. A company used to produce 500 units every 2 days, but 10% of the units were defective. After installing a new process, defects have been eliminated while output has remained the same. What is the percent increase in productivity due to installing the new process?
a) 10.00%
b) 25.00%
c) 11.11%
d) 0.00%
e) 5.56%

Ans: c
Solution:
10% of 500 = 450
450 / 2 = 225
500/2 = 250
250 / 225 = 1.1111 or 11.11%
Section Ref: Productivity
Level: hard

68. A company used to produce 300 units every day, but 20% of the units were defective. After installing a new process, the defect rate has been reduced to 5%, while output has remained the same. What is the percent increase in productivity due to installing the new process?
a) 15.79%
b)   0.00%
c) 15.00%
d) 18.75%
e) −75.00%

Ans: d
Solution:
300 – 20% = 240
300 – 5% = 285
285 / 240 = 1.1875 or 18.75%
Section Ref: Productivity
Level: hard

69. Last month a plant produced 1200 units using 150 labor hours. This month it produced 1500 units using 300 labor hours. What is the percent productivity decrease?
a) 37.50%
b) 60.00%
c) 100.00%
d) 300.00%
e) 200.00%

Ans: a
Solution:
1200 / 150 = 8
1500 / 300 = 5
5/ 8 = .625
100 – 62.5 = 37.50%
Section Ref: Productivity
Level: moderate

70. Which of the following has used the Internet to conduct a fashion show in order to boost sales?
a) The Gap
b) Eddie Bauer

c) Fruit of the Loom
d) Victoria's Secret
e) Sears

Ans: d
Section Ref: Developing a Business Strategy
Level: hard

71. Which of the following is **not** described in the chapter as one of the major environmental trends that firms should monitor?
a) marketplace trends
b) global climate trends
c) economic trends
d) political trends
e) social trends

Ans: b
Section Ref: Developing a Business Strategy
Level: hard

72. Suppose that a plant manager is only evaluated based on the partial productivity measure: output/(number of employees). If she replaces 10% of the workforce with robots (one robot per replaced worker), and output remains the same, what will be the percent change in this measure of productivity?

Ans: 11.1% increase
Section Ref: Productivity
Level: hard

73. Productivity is essentially:
a) something to fill out managers' reports
b) measure of resource effectiveness
c) a scorecard of how efficiently resources are used
d) a balance scorecard metric
e) the current business fad

Ans: c
Section Ref: Productivity
Level: hard

True/False

74. An operations strategy covers a relatively short time horizon, whereas a business strategy covers a relatively long time horizon.

Ans: False
Section Ref: The Role of Operations Strategy
Level: easy

75. To provide speed of delivery, Federal Express invested in a sophisticated bar code technology.

Ans: False
Section Ref: The Role of Operations Strategy
Level: hard

76. To provide dependability of delivery, Federal Express acquired its own fleet of airplanes.

Ans: False
Section Ref: The Role of Operations Strategy
Level: hard

77. Operations Strategy is developed before the business strategy so the company knows what it will be producing before establishing a long range business strategy.

Ans: False
Section Ref: The Role of Operations Strategy
Level: hard

78. Victoria's Secret has used the Internet to conduct a fashion show in order to boost sales.

Ans: True
Section Ref: Developing a Business Strategy
Level: hard

79. Market research represents a type of environmental scanning.

Ans: True
Section Ref: Developing a Business Strategy
Level: moderate

80. Companies that compete on cost generally also allow a lot of product customization.

Ans: False
Section Ref: Developing a Business Strategy
Level: moderate

81. Firms that focus on quality as their primary competitive priority usually implement either product design quality or process quality, but not both.

Ans: False
Section Ref: Developing an Operations Strategy
Level: moderate

82. Federal Express subcontracts its work overload to other firms during peak demand periods.

Ans: False
Section Ref: Developing an Operations Strategy
Level: hard

83. As long as the firm always meets the order qualifier classification it will be always be competitive and win competitive bid opportunities

Ans: False
Section Ref: Developing an Operations Strategy
Level: moderate

84. Companies that compete based on flexibility often cannot compete on cost.

Ans: True

Section Ref: Developing an Operations Strategy
Level: moderate

85. Facilities decisions are part of the production process infrastructure.

Ans: False
Section Ref: Developing an Operations Strategy
Level: moderate

86. Decisions regarding flow of goods and services through the facility are part of the production process structure.

Ans: True
Section Ref: Developing an Operations Strategy
Level: moderate

87. Worker pay decisions are part of the production process structure.

Ans: False
Section Ref: Developing an Operations Strategy
Level: moderate

88. Quality control approaches are part of the production process infrastructure.

Ans: True
Section Ref: Developing an Operations Strategy
Level: moderate

89. Studies have shown that companies that invest in new technologies tend to improve their financial position over those that do not.

Ans: True
Section Ref: Developing an Operations Strategy
Level: moderate

90. Operations management is only concerned with information technology applications within the firm.

Ans: False
Section Ref: Strategic Role of Technology
Level: moderate

91. Process technology is the technology that has grown the **most** rapidly and has had the greatest impact on business.

Ans: False
Section Ref: Strategic Role of Technology
Level: moderate

92. A measure of how efficiently inputs are being converted into outputs is called utilization.

Ans: False
Section Ref: Strategic Role of Technology
Level: moderate

93. Productivity = input/output.

Ans: False
Section Ref: Productivity
Level: easy

94. Output/(all inputs used) is called total productivity.

Ans: True
Section Ref: Productivity
Level moderate

95. An operations strategy should **not** impact the firm's supply chain design.

Ans: False
Section Ref: Operations Strategy Within OM: How It All Fits Together
Level moderate

96. Output/(labor + capital) is an example of a partial productivity measure.

Ans: False
Section Ref: Productivity
Level: moderate

97. Productivity gains in the service sector have been much lower than that of manufacturing.

Ans: True
Section Ref: Productivity
Level: moderate

98. A Marketing Strategy is defines marketing plans to support the business strategy.

Ans: True
Section Ref: The Role of Operations Strategy
Level: easy

99. McDonald's and Pizzerias compete on the same "order winners".

Ans: False; McDonalds competes on consistency, Pizzerias compete on homemade taste.
Section Ref: Developing an Operations Strategy
Level: easy

100. A nation's productivity is **not** directly related to its standard of living.

Ans: False
Section Ref: Productivity
Level: moderate

Essay

101. Describe the difference between operational effectiveness and strategy.

Ans: Operational effectiveness is the ability to perform operations more efficiently than competitors. Strategy, on the other hand, is a plan for competing in the marketplace.
Section Ref: The Role of Operations Strategy
Level: moderate

102. Define "environmental scanning."

Ans: Monitoring the external environment for changes and trends in the market, in the economic and political environment, and in society in order to determine business opportunities and threats.
Section Ref: The Role of Operations Strategy
Level: moderate

103. A mission statement answers what three overriding questions?

Ans: (1) What business is the organization in?, (2) Who are the customers?, (3) How will the company's core beliefs shape its business?
Section Ref: The Role of Operations Strategy
Level: moderate

104. What are some general technological trends in the marketplace?

Ans: point-of-sale scanners, automation, computer-assisted processing, electronic purchasing, electronic order tracking, and e-commerce
Section Ref: The Role of Operations Strategy
Level: moderate

105. How have U.S. tobacco companies responded to public awareness of the dangers of smoking?

Ans: Many have changed their strategy to focus on customers overseas where smoking is still socially acceptable, or have diversified into other product lines.
Section Ref: Developing a Business Strategy
Level: moderate

106. Discuss how the operation strategy categories of structure and infrastructure determine the nature of the company's operations function.

Ans: Structure is the operations decisions related to the design of the production process while infrastructure is operations decisions related to the planning and control systems of the operations. Together they define how the firm will pursue its long range plan.
Section Ref: Developing a Business Strategy
Level: moderate

107. Suggest some core competencies that companies may have.

Ans: highly trained workforce, responsive in meeting customer needs, flexible in performing a variety of tasks, strong technical capability, creative in product design, flexible in producing a variety of products, technologically advanced, an efficient distribution system, skilled in understanding customer wants and predicting market trends, skilled in attracting and raising capital, use of latest production technology, use of information technology, and quality control techniques.
Section Ref: Developing a Business Strategy
Level: moderate

108. What is management guru Tom Peters' famous quote regarding outsourcing? What is his main point?

Ans: "Do what you do best and outsource the rest." The point is to outsource non-core activities so that the firm can focus on its core competencies.
Section Ref: Developing a Business Strategy
Level: hard

109. What outsourcing activities does Total Logistics Control perform for Meijer?

Ans: all deliveries, route scheduling, and all activities involved in maintaining a fleet of trucks
Section Ref: Developing a Business Strategy
Level: hard

110. At the national level why is it important to measure productivity?

Ans: The economic success of a nation and the quality of life of its citizens are related to the competitiveness in the global marketplace. Understanding the nation's productivity helps to define how the nation is performing as a whole/
Section Ref: Developing an Operations Strategy
Level: hard

111. Describe how Southwest Airlines competes on cost.

Ans: Facilities are streamlined: only one type of aircraft is used, and flight routes are generally short. This serves to minimize costs of scheduling crew changes, maintenance, inventories of parts, and many administrative costs. Unnecessary costs are completely eliminated: there are no meals, printed boarding passes, or seat assignments.
Section Ref: Developing a Business Strategy
Level: moderate

112. For what entities can productivity be measured?

Ans: individuals, departments, organizations, industries, or even countries
Section Ref: Productivity
Level: moderate

Fill-in-the-Blank

113. If a company's inputs for producing a certain product increase by 10% and the output increases by 25%, what is the percentage productivity increase for that product?

Ans: 13.6%
Section Ref: Productivity
Level: hard

114. If a company's inputs for producing a certain product increase by 50% and the output increases by 90%, what is the percentage productivity increase for that product?

Ans: 26.7%
Section Ref: Productivity
Level: hard

115. The school's cafeteria has three service lines (pizza, salads, and sandwiches). The pizza line has one server and serves 90 pizzas per hour. The salad line has two servers and they handle 140 customers in 70 minutes. The sandwich line has three servers and they supply 360 sandwiches in 90 minutes. Which service line has the highest hourly productivity?

Ans: Pizza line at 90 pizzas/server/hour
Section Ref: Productivity
Level: hard

116. A new milling machine can process 2000 jobs in 8 hours. What is the productivity of the machine?

Ans: 250 jobs/hour
Section Ref: Productivity
Level: easy

117. A firm produces 6000 products using 12 workers on a nine-hour shift. What is the labor productivity per worker?

Ans: 55.6 units/hour
Section Ref: Productivity
Level: moderate

118. A machine shop produces hangers on two different machines. Machine 1 can produce a hanger every 15 minutes. Machine 2 can produce a hanger every 10 minutes. What is the average productivity per machine?

Ans: 5 units/hour
Section Ref: Productivity
Level: hard

119. A firm produces shirts using three workers. On Wednesday, Madeline completed 110 shirts in 6 hours, Federico completed 90 shirts in 7 hours, and Susan completed 130 shirts in 9 hours. What was the overall productivity of the firm?

Ans: 15 units/hour
Section Ref: Productivity
Level: moderate

120. A firm produces 1500 units per day using four workers on a five-hour shift. On average, 12% of the units produced are defective and must be scrapped. What is the labor productivity for non-defective units?

Ans: 66 units/hour
Section Ref: Productivity
Level: moderate

121. Last week George mowed 6 lawns in two days. This week he mowed 8 lawns in three days. In which week was George more productive?

Ans: last week
Section Ref: Productivity
Level: moderate

122. During week one, on average, the aircraft cleaning staff was able to totally clean an airplane in 45 minutes using 3 cleaners. During week two the average time to clean an aircraft went to 40 minutes with one of the cleaning staff off sick. Week two productivity changed in which direction and by how much?

Ans: Week two productivity is 20 minutes/staff, productivity decreased
Section Ref: Productivity
Level: moderate

123. A company uses two plants to produce motorcycles. Plant A produces 200 per week using 20 workers and 4 machines. Plant B produces 250 per week using 10 workers and 10 machines. Which plant is more productive?

Ans: unknown—Plant A has a higher machine productivity but a lower labor productivity. The cost of labor and machines is needed.
Section Ref: Productivity
Level: moderate

124. Firms measure productivity to learn how _____ they are.

Ans: competitive
Section Ref: Developing an Operations Strategy
Level: moderate

125. Rapid technological change includes the risk of _____ .

Ans: obsolescence.
Section Ref: Strategic Role of Technology
Level: moderate

126. The operations function must place emphasis on those priorities that directly support the _____ _____. Therefore, it needs to make _____ between different priorities.

Ans: Business strategy, trade-offs
Section Ref: Developing an Operations Strategy
Level: moderate

127. Estimating productivity requires measurements of _____ and _____.

Ans: results and effort; output and input, etc.
Section Ref: Productivity
Level: moderate

128. Operations strategy is a long range plan for the design and use of resources in support of _____

Ans: the business strategy
Section Ref: The Role of Operations Strategy
Level: easy

129. Mass produced standard products were the main manufacturing concern until _____.

Ans: the 1970s
Section Ref: The Role of Operations Strategy
Level: easy

130. Restaurants that offer pizza to go have different _____ than those that do not.

Ans: missions
Section Ref: The Role of Operations Strategy
Level: easy

131. _____ _____ is used to improve the process of creating goods and services.

Ans: Process technology
Section Ref: Strategic Role of Technology
Level: easy

132. Environmental scanning helps organizations recognize _____.

Ans: opportunities and threats.
Section Ref: Developing a Business Strategy
Level: easy

133. Firms use _____ to concentrate on their _____.

Ans: outsourcing, core competencies
Section Ref: Developing a Business Strategy
Level: easy

134. A business strategy is like an explorer's _____.

Ans: compass
Section Ref: Developing a Business Strategy
Level: easy

135. Saying that an organization is qualified to be in its marker means it has the right _____.

Ans: order qualifiers
Section Ref: Developing a Business Strategy
Level: easy

136. _____ _____ develops financial plans to support the business strategy.

Ans: Finance Strategy
Sections Ref: The Role of Operations Strategy
Level: easy