



Date: 6/1/2015

Time: 3 hours

The exam in Six pages and these are in on one side of the paper.

Problem 1:

The following spreadsheet shows the numbers of X product units sold over 4-week period.

	A	B	C	D
1	Product Sales Time Series ($\alpha = 0.2$)			
2		Week	Sales	Forecast
3		1	17,100	
4		2	21,100	
5		3	19,100	
6		4	23,100	

Problem 2

A manager must decide on the size of a video arcade to construct. The manager has narrowed the choices to two: small, or large. A consultant's report indicates a 0.40 probability that demand will be low and a 0.60 probability that demand will be high. If the firm builds a small video arcade and demand turns out to be low, the net present value will be \$40 million. If demand turns out to be high, the firm can do nothing and realize the net present value of \$40 million, work overtime and realize the net present value of \$50 million, or expand for a net present value of \$55 million. If the firm could build a large video arcade as a hedge, and demand turns out to be low, the firm could do nothing and realize a net present value of \$-10 million, or it could reduce prices and realize a net present value of \$50 million. If demand turns out to be high, the firm will realize a net present value of \$70 million.

Problem 3

The following table contains information on the cost to run three jobs on four available machines.

		Machine			
		A	B	C	D
Job	1	12	16	14	10
	2	9	8	13	7
	3	15	12	9	11

Problem 4

A manager has received a revised price schedule from a vendor (as shown in the following table). Annual demand is 120 units, ordering cost is \$8, and annual carrying cost is \$1 per unit.



Quantity	Unit Price
1-39	\$14
40-59	\$13
60-89	\$12
90 or more	\$11

Problem 5

The following is a transportation table for a toy manufacturer.

	A	B	C	D	Supply
1	4	2	7	5	150
2	12	13	9	6	250
3	7	11	3	3	300
Demand	150	160	120	270	700/700

Instructions

The following are 35 Multiple Choice Questions (MCQs). Please choose the one alternative that best completes the statement or answers the question, and FULLY shade relative squares in the MCQ answer sheet. You MUST provide a full account of your calculations in the sheet as failing to provide a full account of your answer will result in CANCELLING your choices. You must leave your question sheet inside the answer sheet. Please note that 'NOTA' denotes none of the above.

Questions from 1 to 3 are related to problem 1

- The forecast of week 1 is:
A) 17,000 B) 17,500 C) 17,600
D) 17,900 E) NOTA
- The forecast of week 2 is:
A) 17,000 B) 17,500 C) 17,600
D) 17,900 E) NOTA
- Using the exponential smoothing method with $\alpha = 0.2$, calculate the forecast of week 3.
A) 17,000 B) 17,500 C) 17,600
D) 17,900 E) NOTA

Questions from 4 to 6 are related to problem 2

- The expected value of the small size arcade is -----.
A) 49 B) 62 C) 33
D) 44 E) NOTA
- The expected value of the large size arcade is -----.



- A) 20
D) 16
- B) 49
E) NOTA
- C) 62

6. The best alternative is to build the -----.

- A) Small arcade
D) A and B
- B) Reduce prices
E) NOTA
- C) Large arcade

Questions from 7 to 10 are related to problem 3

7. Job 1 should be assigned to machine -----.

- A) B
D) D
- B) A
E) NOTA
- C) C

8. Job 2 should be assigned to machine -----.

- A) B
D) D
- B) A
E) NOTA
- C) C

9. Job 3 should be assigned to machine -----.

- A) B
D) D
- B) A
E) NOTA
- C) C

10. Referring to the original table, the optimal total assignment cost is -----.

- A) 18
D) 27
- B) 17
E) NOTA
- C) 24

Questions from 11 to 14 are related to problem 4

11. The EOQ is -----.

- A) ≈ 39
D) ≈ 51
- B) ≈ 44
E) NOTA
- C) ≈ 36

12. The total cost of the EOQ is -----.

- A) 1,603.8
D) 4,400
- B) 1,486
E) NOTA
- C) 1,735.7

13. The total cost of the 60-89 range is -----.

- A) 1,603.8
D) 4,400
- B) 1,486
E) NOTA
- C) 1,735.7

14. The quantity that yields the lowest total cost is -----.

- A) 44
D) 40
- B) 60
E) NOTA
- C) 90

Questions from 15 to 18 are related to problem 5

15. Cell 2-B should be filled by ----- units.

- A) 30
D) 270
- B) 150
E) NOTA
- C) 10

16. Cell 3-D should be filled by ----- units.

- A) 30
D) 270
- B) 150
E) NOTA
- C) 10

17. Cell 1-D should be filled by ----- units.

- A) 30
D) 0
- B) 150
E) NOTA
- C) 10

18. The total cost of the initial solution using the intuitive lowest-cost approach is -----.

- A) 3,940
D) 4,100
- B) 3,800
E) NOTA
- C) 4,000

19. Certainty means that relevant parameters (e.g., demand) have -----.



- A) known values (or certain future condition, event, or state)
B) unknown values
C) parameters with probabilistic outcomes
D) not existed in reality
E) None of the above
20. **Uncertainty means that -----.**
A) relevant parameters have probabilistic outcomes
B) it is impossible to assess the likelihood of various possible future conditions
C) it is possible to assess the likelihood of various possible future conditions
D) it is difficult to use decision modeling and analysis techniques
E) None of the above
21. **To copy the contents of cells, we -----.**
A) **Select the original cells, click the right mouse button, and then choose Copy from the pop-up menu**
B) Depress the control key while pressing C (Ctrl-C)
C) A and B
D) Select the original cells, click the left mouse button, and then choose Copy from the pop-up menu
E) None of the above
22. **While depressing the left button, the mouse is moved to cells to the left, to the right, above, or below. That is called -----.**
A) Dragging
B) Shading
C) Copying
D) Pasting
E) None of the above
23. **Risk means that -----.**
A) All future profits may be lost
B) relevant parameters have probabilistic outcomes
C) relevant parameters do not have probabilistic outcomes
D) A and B
E) None of the above
24. **When using Excel for Exponential Smoothing Forecasting, the first step will be -----.**
A) Select Forecast then select smoothing averages then select Exponential
B) Select smoothing then select Exponential Smoothing
C) Select the Data tab and then select the Data Analysis option
D) B and C
E) None of the above
25. **If the historical data are restricted to past values of the variable that we are trying to forecast, the forecasting procedure is called -----.**
A) Linear method
B) Restrictive method
C) A and C
D) None of the above



26. When using Excel for Trend Projection, one should fill the Function Arguments dialog box. To reach this box, the following should be implemented -----.
- A) Select Formulas then Statistical then Forecast then More Functions
 - B) Select Formulas then More Functions then Forecast then Statistical
 - C) Select Formulas then More Functions then Statistical then Forecast
 - D) Select Formulas then Forecast then More Functions then Statistical
 - E) None of the above
27. The objective of time series methods is to -----.
- A) Order data in terms of time
 - B) Discover a pattern in the historical data and then extrapolate this pattern into the future
 - C) Differentiate between alternatives in case of risky environments
 - D) A and C
 - E) None of the above
28. All of the following is correct about the exponential smoothing method *except* one. Identify the exception.
- A) Its objective is to smooth out the random fluctuations caused by the irregular component of the time series
 - B) Is appropriate for a stable time series because it adapts well to changes in the level of the time series
 - C) Generally provide a high level of accuracy for short-range forecasts (such as a forecast for the next time period)
 - D) All of the above
 - E) None of the above
29. A linear trend equation has the form of -----.
- A) $Y_t = a + bt$
 - B) $Y_t = ba + bt$
 - C) $Y_t = a + by$
 - D) $T_y = a + by$
 - E) None of the above
30. The basic exponential smoothing model is -----.
- A) $F_t = \alpha F_{t-1} + \alpha (A_{t-1} - F_{t-1})$
 - B) $F_t = F_{t-1} + \alpha (A_{t-1} - F_{t-1})$
 - C) $\sum (\text{Most recent } n \text{ data values})/n$
 - D) $n/\sum (\text{Most recent } n \text{ data values})/n$
 - E) None of the above
31. The overall objective of ----- is to: (1) achieve satisfactory levels of customer service; (2) while keeping inventory costs within reasonable bounds.
- A) SCM
 - B) Tactical buying
 - C) Sourcing and values analysis
 - D) Profitable buying
 - E) Inventory management



- 32. Which of the following is *not* one of the assumptions of the basic EOQ model?**
- A) Annual demand requirements are known and constant.
 - B) Lead time does not vary.
 - C) Each order is received in a single delivery.
 - D) Quantity discounts are available.
 - E) All of the above are necessary assumptions.
- 33. In job shop systems, products are made to order, and orders usually differ considerably in terms of -----.**
- A) Processing requirements
 - B) Materials needed
 - C) Processing time
 - D) Processing sequence and setups
 - E) All of the above
- 34. Scheduling in the job systems is fairly complex and schedulers face the following problem(s):**
- A) Loading (the assignment of jobs to processing centers)
 - B) Sequencing (determining the order in which jobs at work center will be processed)
 - C) Programming
 - D) A and B
 - E) None of the above
- 35. Requirements for effective inventory management include -----.**
- A) A system keeping track of inventory
 - B) Knowledge of lead time and lead time variability
 - C) Reasonable estimates of inventory costs
 - D) Classifying inventory according to some measure of importance
 - E) All of the above

Best Wishes.... Dr Tarek El Shafeey

Kafrelsheikh University
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1nd Semester exam 2014 /3015



Course: Quality management
Grade:4 (Business)
85 Marks

Date: 18-1-2014

Time: 3 hr

Please be attentive to the number of pages in the exam, as the exam pages may be on both sides of the paper OR on other separate pages.

First Question : Short essay questions

15Marks

1. Quality cost is divided into two categories. Just identify the two categories
2. Clarify continuous improvement as one of the TQM philosophes
3. Responding to customers complaints improve satisfaction can be one of the famous customer myths. Discuss
4. How can CRM helps firm to gain and maintain competitive advantage
Just list the five characteristics of an innovation

Second Question: Fill in questions

25 Marks

1. Consider the amount of light delivered by a 60 watt light bulb. If the bulb delivers 50. This is an example of
2.cost include everything from customer complaints, product returns, and repairs, to warranty claim
3. is the development of a cause-and-effect diagram requires the team to think through all the possible causes of poor quality
4. To create an effective company must realize that more than half of the customers who are dissatisfied are not going to deal with the company again
5. Linking customer requirements to design can be achieved through
6. is the degree of caring and individual attention provided to customers
7.the process by which innovation spreads
8. is built into the system by placing components in parallel

9. A product may have to change in a number of ways to meet the..... of a new market
- 10.....adaptation can be costly because a change in the product can affect production process

Third Question: Draw diagrams to explain the following (write no more than 3 lines to explain each diagram) 15 Marks

1. Flow chart as a quality tool
2. Control chart as a quality tool
3. Create your own example of relationship matrix
4. Cost of quality defects
5. Create your own example of checklist as a quality tool

Fourth Question: True and false questions (correct the wrong statement)

25 Marks

1. Basic quality can be achieved through extraordinary quality and exceed the customers' expectations ()
2. Product homologation is the changes made to local product and service standards ()
3. Relative advantage is the ease with which the product benefits can be communicated ()
4. Stratified customer requires new innovation features that are unknown by the customers ()
5. Removing cause of dissatisfaction help to satisfy customers ()
6. Control charts is a technique of quality tools used to identify quality problems based on their degree of importance ()
7. In evaluating the newness, many products are considered at introductory stage ()
8. Excellent CRM depends only on commitment ()
9. observability is the ease with which the product benefits can be communicated ()



Date: 14/01/2015

Time: 3 hours

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Please answer all questions.

Question One: complete the following statements

35 Marks

1. refers to the process whereby a firm determines the costs associated with organizational activities from purchasing raw materials to manufacturing product(s) to marketing those products.
2. Mintzberg adaptive mode is characterised by to existing problems, rather than Much bargaining goes on concerning priorities of objectives. Strategy is
3. The Industrial Organization (I/O) approach to competitive advantage advocates that
4. The three most highly rated benefits of strategic management are:
 1.
 2.
 3.
5. are called distinctive competencies.
6. Corporate strategy describes It typically fit within the three main categories of,, and
7. Moral relativism claims that morality is relative to some,, orstandard and that there is no method for deciding
8.is an analytical tool used to determine whether a firm's value chain activities are competitive compared to rivals and thus conducive to winning in the marketplace.
9. Strategic decisions deal with the long-run future of an entire organisation and have three characteristics:
 1.
 2.
 3.

10. Strategic management is that determines the It includes environmental scanning (both), strategy (strategic or long-range planning), strategy and.....
11. Environmental sustainability refers to
12. Organizational culture can be defined as
13. A is a value chain activity that a firm performs especially well. When it evolves into a major competitive advantage, then it is called a
14. Managers attempt to better deal with their changing world, a firm generally evolves through the following four phases of strategic management.
 Phase 1 -
 Phase 2 -
 Phase 3 -
 Phase 4 -
15. The Resource-Based View (RBV) approach to competitive advantage contends that

Question Two: Cases

15 Marks

“Mission statements can and do vary in length, content, format, and specificity. Most practitioners and academicians of strategic management feel that an effective statement should include nine components.”

Mission statement of PepsiCo:

“We aspire to make PepsiCo the world’s premier consumer products company, focused on convenient foods and beverages. We seek to produce healthy financial rewards for investors as we provide opportunities for growth and enrichment to our employees, our business partners and the communities in which we operate. And in everything we do, we strive to act with honesty, openness, fairness and integrity.”

Mission statement of Dell:

“Dell’s mission is to be the most successful computer company in the world at delivering the best customer experience in markets we serve. In doing so, Dell will meet customer expectations of highest quality; leading technology; competitive pricing; individual and company accountability; best-in-class service and support; flexible customization capability; superior corporate citizenship; financial stability”

Based on the previous, complete the following table:

1. List the nine components of mission statement.
2. Write the phrase in PepsiCo’s mission statement that relates to each component.
3. Write the phrase in Dell’s mission statement that relates to each component.
4. Write the missing component in PepsiCo’s mission statement
5. Write the missing component in Dell’s mission statement

The nine components of mission statement	PepsiCo	Dell	Missing component
1.
2.
3.
4.
5.
6.
7.
8.
9.

In your answer sheet please copy this table and fill in the spaces

Question Three: Compare between the followings:

18 Marks

1. Compare between Friedman’s traditional view with Carroll’s contemporary view of social responsibility.
2. The different views of ethics according to the utilitarian, individual rights, and justice approaches.
3. The Proponents of both the I/O and the RBV
4. Bargaining power of suppliers and that of consumers
5. The internal environment and the external environment
6. The company’s mission, objectives, and strategy

10 Marks

Question Four:

Illustrate using diagram only the following:

- a. Five forces model of competition
- b. Company's Social responsibility according to Carroll
- c. Hierarchy of strategy
- d. The process of gaining competitive advantage in a firm
- e. Basic elements of the strategic management process

7 Marks

Question Five:

1. How culture can inhibit strategic management?
2. *Technological forces represent major opportunities and threats that must be considered in formulating strategies.*
Explain the previous statement

Best Wishes
Dr Reham S. Ebrahim