

BBUQ 401 – OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Quiz 3-02

Fall 2012

Name_____

(0.5 point each)

1. Given forecast errors of 5, 0, - 4, and 3, what is the mean absolute deviation (MAD)?

a. 4

b. 3

c. 2.5

d. 1

e. none of the above.

$$\text{MAD} = \Sigma(|e|)/n = |5+0+(-4)+3|/4 = 3$$

2. Forecasts for groups of items tend to be less accurate than forecasts for individual items.

TRUE / **FALSE**

3. An advantage of a weighted moving average is that recent actual results can be given more importance than what occurred a while ago.

TRUE / FALSE

4. Which of the following is **not** a type of judgmental (i.e., qualitative) forecasting?

a. executive opinions

b. sales force opinions

c. consumer surveys

d. the Delphi method

e. time series analysis

5. The mean squared error (MSE) is used to:

a. estimate the trend line

b. eliminate forecast errors

c. seasonally adjust the forecast

d. measure forecast accuracy

e. all of the above

6. Organizations that are capable of responding quickly to changing requirements can use a shorter forecast horizon and therefore benefit from more accurate forecasts.

TRUE / FALSE

7. In order to decrease the responsiveness of a forecast made using the simple moving average technique, the number of data points in the average (n) should be:
- a. decreased
 - b. increased**
 - c. multiplied by a larger alpha (α)
 - d. multiplied by a smaller alpha (α)
 - e. none of the above
8. Last month's actual demand is the same as a forecast for this month if the forecast is based on:
- a. exponential smoothing (or weighting) with alpha equal to 0.5.
 - b. naïve forecast.**
 - c. weighted moving average.
 - d. moving average with a period of at least two months.
9. The naïve forecast can serve as a quick and easy standard of comparison against which to judge the cost and accuracy of other techniques.

TRUE / FALSE

10. For the data given below, what would the naïve forecast be for the next period (period #5)?

<u>Period</u>	<u>Demand</u>
1	150
2	155
3	159
4	162

$$F_t = A_{t-1}, \quad F_5 = A_4 = 162$$

- a. 150
- b. 156.5
- c. 162**
- d. 161
- e. cannot tell from the data given