

Week 15 Self Assessment 10

Started: Dec 4 at 9:47pm

Quiz Instructions

Self Assessment 10 covers the topics in **Week 15** and is worth **1% of your overall grade**. You may work on the homework for as long as you like within the given window. Please note that your answers will automatically save as you key them and you are allowed multiple attempts. Again, please note, **you should only click "submit" when you are completely finished with the assignment and ready to submit it for grading**.

Also, please remember that you are to complete this assignment on your own. Any help given or received constitutes cheating. If you have any general questions about the assignment, please post to the Piazza board. **If your question involves specific references to the answer to a question or questions, please be sure to mark your post as private.**



Question 1

1 pts

1. Which is not a pressure to hold more inventory?

- ☐ a. It protects against spikes in demand
- ☐ b. It protects against supply chain disruption
- ☐ c. It reduces the number of orders one has to make
- ☒ d. It is better for reducing holding cost



Question 2

1 pts

2. Which is not an assumption of the EOQ model?

- ☐ a. No limit on the size of an order
- ☒ b. Lead time can vary
- ☐ c. Demand is known and Constant

- ☐ d. Only relevant costs are ordering and inventory holding costs

**Question 3****1 pts**

3. The Reorder Point tell us, at what inventory level, should we place an order for more stock.

- ☒ True
- ☐ False

**Question 4****1 pts**

4. A company that markets portable EKG machines to hospitals wants to rationalize its inventory costs using EOQ. Demand is 1,000 machines per year and it costs \$10 to place an order. Holding cost is \$.50. What recommendation would you make?

- ☐ a. Order 100 at a time
- ☐ b. Order 500 at a time
- ☒ c. Order 200 at a time
- ☐ d. Order 300 at a time

**Question 5****1 pts**

5. The average demand for iPhones at the local Walmart is 15 units a day with a standard deviation of 5. It takes 2 days to get more once a new order is placed. The company has a no more than 10% stock out policy. What is the reorder point? (Take z-score of 90% as 1.28)

- ☐ a. 20 iPhones
- ☐ b. 29 iPhones
- ☐ c. 30 iPhones
- ☒ d. 39 iPhones

**Question 6****1 pts**

6. Dahlonga Rehab Motors has an annual demand for motors of 1,400 units. The cost of a typical motor is \$400. Carrying costs are estimated to be 20% of unit cost and the ordering cost is \$25 per order. If Dahlonga Rehab orders in quantities of 300 or more, they get a 5% discount. If they are interested in minimizing total cost, should they take the discount?

- ☒ a. Yes. Order 300 each time. Total cost with the discount is less than EOQ with no discount.
- ☐ b. No. Order 30 each time. Total cost with the discount is more than EOQ with no discount.

**Question 7****1 pts**

7. Sam Flynn is in charge of maintaining motorcycles for Tron Inc. During the past year (250 working days), he replaced 1,000 tires a day (yes he is fast!) with a standard deviation of 100 tires/day. There is a 2 day lead time to get more and his boss Quorra wants a 97% service level. How much safety stock should he keep? (Take z-score of 97% as 1.88)

- ☐ a. 222 tires
- ☐ b. 244 tires
- ☒ c. 266 tires
- ☐ d. 288 tires

**Question 8****1 pts**

8. For the prior question, what is the reorder point?

- ☐ a. ROP = 2,000 tires
- ☒ b. ROP = 2,266 tires
- ☐ c. ROP = 2,288 tires
- ☐ d. ROP = 2,222 tires

**Question 9-10 - Details**

Use the following for Questions 9-10:

Waffle Falafel Abode is a small diner in Atlanta that is open 300 days a year. They use high End Ostrich eggs in making breakfast. Demand for Ostrich eggs is constant at 6,000 units per year. It costs \$30 on average to place an order. Inventory holding costs are \$10 per egg per year. Orders always arrive in 4 days. They want to come up with an inventory policy for this environment.

**Question 9****1 pts**

9. What is EOQ?

- ☐ a. 300 eggs
- ☐ b. 224 eggs
- ☒ c. 190 eggs
- ☐ d. 168 eggs

**Question 10****1 pts**

10. What is the ROP?

- ☒ a. 80 eggs
- ☐ b. 30 eggs
- ☐ c. 16 eggs
- ☐ d. 25 eggs

Quiz saved at 9:55pm

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