

True-False Questions: Week 12

1. True-False (± 20 points)

To discourage guessing, each correct answer is rewarded with one point, each incorrect answer is penalized with one point, and a question left unanswered is neither rewarded nor penalized. For example, if you answer seven questions out of ten correctly and answer three questions wrong, then your final score will be four. On the other hand, if you had answered only the six questions of which you were sure and left the remaining four questions blank, then your final score would have been six. This policy makes the expected reward for guessing equal to zero.

The questions in each paragraph are always related to the same topic and any assumptions remain valid in this paragraph unless otherwise stated. Questions in different paragraphs have no relationship with each other and assumptions do not remain valid from one paragraph to the next.

A common measure of customer service is the long-range fraction of product delivered out of inventory, (T/F) ____ (1).

A Just-In-Time Pull inventory system is best suited to regular demand patterns, (T/F) ____ (2).

A lower inventory turnover ratio is desirable, (T/F) ____ (3).

A mandated service level of 98 % of the product delivered out of inventory will create higher levels of inventory than the mandated service level of the probability of no stock out more than or equal to 98 %, (T/F) ____ (4).

DRP is an extension of MRP to allow integrated supply scheduling throughout the entire logistics channel, (T/F) ____ (5).

For an inventory system with a stochastic lead time, the safety inventory in a system with a larger coefficient of variation of the lead time will be less than or equal to than the safety inventory in a system with a smaller coefficient of variation of the lead time, (T/F) ____ (6).

If the coefficient of variation of the sample demand data is larger than one, then a normal distribution is a good approximation of the demand distribution, (T/F) ____ (7).

If the cumulative demand for the mean plus two standard deviations is less than eighty percent then the normal distribution is a good approximation of the demand distribution, (T/F) ____ (8).

If the future demand is known with perfect certainty, then there is no need to have inventory in the logistics system, (T/F) ____ (9).

If the marginal loss is larger than the marginal profit in a single order inventory system, then the purchased inventory should be smaller than the expected demand, (T/F) ____ (10).

In a pull inventory system the replenishments are based on the forecasted demand of the final and intermediate products, (T/F) ____ (11).

In DRP the inventory levels of various components is dependent on the forecasted demand for the final finished good, (T/F) ____ (12).

One of the main reasons to hold product inventory in the supply chain is to decouple the sequence of processing steps in the supply chain, (T/F) ____ (13).

Response time constraints is one of the fundamental reasons to have warehousing and inventory, (T/F) ____ (14).

The average inventory caused by the iterative determination of Q and R for the case of stochastic demand and shortage cost in the system and with a service level constraint of type 1 will be less than or equal to the average inventory caused by the single pass determination of Q and R for the same case, (T/F) ____ (15).

The DRP system for determining inventory levels cannot accommodate a single order for a product with known quantity and known delivery due date, (T/F) ____ (16).

The inventories necessary to meet the average demand during the time between successive replenishments is called the pipeline inventory, (T/F) ____ (17).

The inventory turnover ratio is equal to the ratio of the annual sales at inventory cost divided by the average inventory investment, (T/F) ____ (18).

The probability of negative demand should be smaller than 1 percent if a normal distribution for the demand is to be used, (T/F) ____ (19).

To determine the proper inventory level for a single order, one needs only the historical records of sales made to the customers to determine the demand distribution and its parameters, (T/F) ____ (20).

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