

True-False Questions: Week 4

1. True-False (± 32 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.

The confidence interval of a demand forecast is a critical datum required predict the future value of the demand, (T/F)____(1).

A cyclic demand pattern has cycles of varying length and magnitude, (T/F)____(2).

Time series forecasting attempts to predict the value of a variable based on the currently observed values of different variables, (T/F)____(3).

A moving averages forecast lags any trend the forecasted variable may have, (T/F)____(4).

In exponential smoothing the weights of the different historical values form a geometrically decreasing pattern when the values go farther back in time, (T/F)____(5).

In exponential smoothing a larger smoothing constant will create a forecast that more rapidly tracks a current trend in the forecasted variable, (T/F)____(6).

ARIMA models are used for forecasting autocorrelated data, (T/F)____(7).

Using forecasting techniques based on time series analysis, different forecasters will arrive that the same forecast if they use the same data, (T/F) ____ (8).

Using the moving average forecasting method, only the last observation or realized demand needs to be kept, (T/F) ____ (9).

A higher value of the alpha parameter in exponential smoothing forecasting increases the stability of the forecast, (T/F) ____ (10).

The sum of the normalized seasonality factors in Winter's exponential smoothing method must add up to the number of periods in the cycle, (T/F) ____ (11).

Holt's exponential smoothing method requires three smoothing constants, (T/F) ____ (12).

At least two full cycles of data are required to use Winter's exponential smoothing method, (T/F) ____ (13).

When the data are autocorrelated, they are assumed to be independent samples of a probability distribution, (T/F) ____ (14).

A professionally prepared forecast will include the expected value and a confidence interval, (T/F) ____ (15).

A forecast of the weekly demand for products in a grocery store tends to be more accurate than the forecast for the daily demand for the same products, (T/F) ____ (16).

A forecast for the sales in a home improvement store of batteries of a single manufacturer tends to be more accurate than the forecast for the sales of batteries of all manufacturers combined, (T/F) ____ (17).

Given that all other parameters remain the same, a larger mean squared forecast error corresponds to a larger confidence interval, (T/F) ____ (18).

The moving averages forecasting technique is the appropriate technique when the underlying data exhibits a linearly growing trend, (T/F) ____ (19).

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