

Unit 5 - Week 4

Course outline

How to access the portal

Week 1

Week 2

Week 3

Week 4

 Regression Based Forecasting Methods-Part I

 Regression Based Forecasting Methods-Part II

 Regression Based Forecasting Methods-Part III

 Time Series Forecasting-Smoothing Methods Part I

 Time Series Forecasting - Smoothing Methods Part II

 Quiz : Assignment 4

 Solution For Assignment 4

FEEDBACK LINK

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Transcriptions

Assignment 4

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-08-28, 23:59 IST.

1) Calculate four periods moving average forecast from the last six periods:

1 point

Period	Demand
1	38
2	40
3	42
4	40
5	44
6	38

- 40
 41
 42
 43

No, the answer is incorrect.

Score: 0

Accepted Answers:

41

 2) To select a value for α for exponential smoothing-

1 point

- use a small α when the series varies substantially
 use a large α when the series has little random variability
 use any value between 0 and 1
 All of the alternatives are true

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of the alternatives are true

3) Exponential trend can be expressed using following equation:

1 point

- $Y_t = \alpha e^{\beta t + \epsilon}$
 $Y_t = \beta e^{\alpha t + \epsilon}$
 $Y_t = \alpha e^{\beta + \epsilon}$
 $\ln(Y_t) = \alpha e^{\beta_0 t}$

No, the answer is incorrect.

Score: 0

Accepted Answers:

 $Y_t = \alpha e^{\beta t + \epsilon}$

 4) $Y_t = \beta_0 + \beta_1 t + \beta_2 t^2 + \epsilon$

1 point

How many predictors are present in the following equation?

- 1
 2
 3
 4

No, the answer is incorrect.

Score: 0

Accepted Answers:

2

 5) In following regression equation: $Y_t = \beta_0 + \beta_1 t + \epsilon$

1 point

 Where t = time index, Y_t = number of bicycle riders at time t , and $t = 1, 2, 3, \dots$

Which of following component from the above regression equation leads to trend?

- t
 ϵ
 β_0
 β_1

No, the answer is incorrect.

Score: 0

Accepted Answers:

 β_1

6) Suppose you have been asked to generate a demand forecast for a product for year 2012 using an exponential smoothing method. The forecast demand in 2011 was 910. The actual demand in 2011 was 850. Using this data and a smoothing constant of 0.3, which of the following is the demand forecast for year 2012?

1 point

- 850
 885
 892
 925

No, the answer is incorrect.

Score: 0

Accepted Answers:

892

7) Time series methods:

1 point

- discover a pattern in historical data and project it into the future.
 includes cause-effect relationships
 are useful when historical information is not available
 All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

discover a pattern in historical data and project it into the future.

8) Polynomial trend generally follows:

1 point

- T shape trend
 U shape trend
 Linear trend
 V-shape trend

No, the answer is incorrect.

Score: 0

Accepted Answers:

U shape trend

9) Which of the following indicates the purpose for using the least squares method on time series data?

1 point

- identifying the trend component
 exponentially smoothing the data
 deseasonalizing the data
 identifying the irregular component

No, the answer is incorrect.

Score: 0

Accepted Answers:

identifying the trend component

10) Data that increase by a constant amount at each successive time period show:

1 point

- Nonlinear trend
 Linear trend
 Exponential trend
 Polynomial trend

No, the answer is incorrect.

Score: 0

Accepted Answers:

Linear trend