

# Unit 4 - Week 3

## Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Time Series Forecasting- Working Example Of Exponential Smoothing I

Time Series Forecasting- Working Example Of Exponential Smoothing II

Time Series Forecasting- Working Example Of Exponential Smoothing III

Forecasting Errors

Causal Or Explanatory Methods

Quiz : Assignment 3

Solution of Assignment 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

DOWNLOAD VIDEOS

FEEDBACK

Text Transcripts

## Assignment 3

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

Due on 2020-02-19, 23:59 IST.

1) Which of the correct formula for basic exponential smoothing forecast? Here  $\alpha$  is smoothing constant.

1 point

- Forecast =  $\alpha$  (Current Demand) + (1 -  $\alpha$ ) (Previous Base)  
 Forecast = (1- $\alpha$ ) (Current Demand) +  $\alpha$  (Previous Base)  
 Forecast = (Current Demand) + (1-  $\alpha$ ) (Previous Base)  
 None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Forecast =  $\alpha$  (Current Demand) + (1-  $\alpha$ ) (Previous Base)

2) Generally, which of the following cut off control limit for smoothing constant?

1 point

- 0  
 1  
 0.1  
 0.5

No, the answer is incorrect.

Score: 0

Accepted Answers:

0.1

3) Let us consider alpha as 0.1, base for the month of January as 50 units and demand in the month February happened to be 60 units. What will be forecast for the month of March?

1 point

- It cannot be determined with given data.  
 51 Units  
 59 units  
 55 units

No, the answer is incorrect.

Score: 0

Accepted Answers:

51 Units

4) Let us consider alpha as 0.1, base for the month of January as 50 units and demand in the month January happened to be 60 units. What will be forecast for the month of March?

1 point

- It cannot be determined with given data.  
 51 Units  
 59 Units  
 55 Units

No, the answer is incorrect.

Score: 0

Accepted Answers:

It cannot be determined with given data.

5) In a basic smoothing problem, value of alpha is taken as 1. What does it signify?

1 point

- All fluctuations of the last period is included in the forecast.  
 New base is the new demand and the previous base is totally ignored.  
 Base and Demand of previous period are same  
 None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

New base is the new demand and the previous base is totally ignored.

6) Consider following table:

1 point

Month	Actual Demand	Base	Forecast
Initial	---	23.0	---
January	19.36	22.27	23.0
February	25.45		
March			

What is the forecast for the month of March?

- 22.27  
 22.90  
 25.45  
 Cannot be determined

No, the answer is incorrect.

Score: 0

Accepted Answers:

22.90

7) Tracking signal is defined as

0 points

- Running sum of forecasting errors + Mean absolute Deviation  
 Running sum of forecasting errors X Mean Absolute deviation  
 Running sum of forecasting errors/ Mean absolute Deviation  
 Running sum of forecasting errors – Mean Absolute deviation

No, the answer is incorrect.

Score: 0

Accepted Answers:

Running sum of forecasting errors X Mean Absolute deviation

8) Consider following table :

0 points

Period	Demand	Forecast
1	20	18
2	10	25
3	30	15
4	40	30
5	30	35

What is the value of Mean Absolute Deviation at the end of fifth period using data given in the above table?

- 5.4  
 1.4  
 10  
 12

No, the answer is incorrect.

Score: 0

Accepted Answers:

5.4

9) Consider following table :

0 points

Period	Demand	Forecast
1	20	18
2	10	25
3	30	15
4	40	30
5	30	35

What is the value of tracking signal at the end of third period using above data?

- 2  
 4  
 1  
 0.5

No, the answer is incorrect.

Score: 0

Accepted Answers:

0.5

10) Which of the following is not a causal method?

1 point

- Regression Method  
 Econometric Method  
 Delphi method  
 None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Delphi method