

Course outline

How does an NPTEL online course work?

Week 0 :

Week 01

Week 02

Week 03

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Week 05 :

Week 06

Week 07

Week 08

Week 09

Lecture 70: Autocorrelation

Lecture 71: Autocorrelation (Contd.)

Lecture 72: Autocorrelation (Contd.)

Lecture 73: Autocorrelation (Contd.)

Lecture 74: Autocorrelation (Contd.)

Lecture 75: Autocorrelation (Contd.)

Lecture 76: Autocorrelation (Contd.)

Lecture 77: Autocorrelation (Contd.)

Lecture 78: Autocorrelation (Contd.)

Lecture 79: Autocorrelation (Contd.)

Lecture 80: Autocorrelation (Contd.)

Lecture 81: Autocorrelation (Contd.)

Quiz: Week 9:Assignment 9

Feedback for Week 9

Week 10

Week 11

Week 12

Course Material

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Assignment Solution

Week 9:Assignment 9

The due date for submitting this assignment has passed.

Due on 2021-09-29, 23:59 IST.

As per our records you have not submitted this assignment.

- 1) If ε_t is the error term in period t, which of the following statements best defines Second-order autocorrelated errors?
- a) ε_t is linear function of ε_{t-1}
- b) ε_t is linear function of ε_{t-2}
- c) ε_t is linear function of ε_{t-1} and ε_{t-2}
- d) ε_t is linear function of square of ε_{t-1}

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

1 point

- 2) If autocorrelation is present in a regression model, then the regression coefficients estimated will not be
- a. Unbiased
- b. Consistent
- c. Efficient
- d. All of the above

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

1 point

- 3) The Durbin Watson statistics of 2 corresponds to
- a) Perfect positive autocorrelation
- b) Perfect negative autocorrelation
- c) No autocorrelation
- d) High autocorrelation

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

1 point

- 4) Which of the following statements are true regarding Breush-Godfrey test?
- a. It is used to test the null hypothesis of no autocorrelation
- b. Lags of dependent variable should not be present as regressor
- c. The test is valid even when the lagged value of the dependent variable appears as a regressor
- d. It is a Chi-square test

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

c

d

1 point

- 5) The range of Durbin Watson statistics is
- a) 0 to 1
- b) -1 to +1
- c) 0 to 4
- d) -4 to +4

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

1 point

- 6) Suppose that the Durbin Watson test is applied to a regression containing two explanatory variables plus a constant (k=3) with 50 data points. The test statistic takes a value of 1.55. What is the appropriate conclusion?
- a) Residuals appear to be positively autocorrelated
- b) Residuals appear to be negatively autocorrelated
- c) Residuals appear not to be autocorrelated
- d) The test result is inconclusive

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

1 point

- 7) If a Durbin Watson statistic takes a value close to zero, what will be the value of the first order autocorrelation coefficient?
- a) Close to zero
- b) Close to plus one
- c) Close to minus one
- d) Close to either minus one or plus one

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

1 point

- 8) Negative residual autocorrelation is indicated by which one of the following?
- a) A cyclical pattern in the residuals
- b) An alternating pattern in the residuals
- c) A complete randomness in the residuals
- d) Residuals that are all close to zero

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

1 point

- 9) Which of the following are tests for detecting Autocorrelation?
- (a) Durbin Watson test
- (b) Correlogram (ACF plot)
- (c) Breush Pagan Godfrey test
- (d) Goldfeld quandt test

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

b

1 point

- 10) Which of the following could be used as a test for autocorrelation up to third order?
- a) The Durbin Watson test
- b) White's test
- c) The RESET test
- d) The Breusch-Godfrey test

- ☐ a
- ☐ b
- ☐ c
- ☐ d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

1 point