Week 11 : Assignment 11

The due date for submitting this assignment has passed.

Due on 2021-10-13, 23:59 IST.

As per our records you have not submitted this assignment.

1) *1 point*

Which of the following is an assumption of Instrumental Variables (IV) estimation?

a. Instruments must have a strong effect on the treatment indicator
b. Instruments must have a strong effect on the outcome through the treatment indicator
c. Instruments must have a direct effect on the outcome
d. Instruments should encourage some people into treatment and discourage others into treatment.

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

2) *1 point*

Which of the following is not true?

a. Instrument variable must be independent of the error terms
b. Instrument variable must have high correlation with the treatment variable
c. Standard error in IV case differs from OLS only in the R2 from regressing x on z
d. IV standard errors are smaller than the OLS standard errors (with same Y and X variables)

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

3) *1 point*

The consequence of imperfect multicollinearity is that:

a. the estimates of regression coefficients are inconsistent
b. OLS estimator cannot be computed
c. the variance of the coefficient estimates goes up
d. none of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

4) *1 point*

A possible solution to measurement error bias is to

a. use log-log specifications
b. use a quadratic specification
c. use the square root of that variable since the error becomes smaller
d. mitigate the problem through instrumental variables regression

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

5) *1 point*

Which of the following statements are FALSE regarding Gauss Markov assumptions?

a. The conditional mean of error term is zero
b. Error terms has constant variance
c. Errors are uncorrelated
d. Influential observations are absent

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d

6) *1 point*

Which of the following expressions correctly defines non-stochastic regressor?

a) The independent variable is partially random
b) The explanatory variable is deterministic in repeated samples
c) The independent variable always has a value of one
d) The independent variable is correlated with the errors

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
b

7) *1 point*

Consider the following simple regression model:

$Y = \beta_1 + \beta_2 X_1 + u$;

u is error term

In order to obtain consistent estimators of β_1 and β_2, when x and u are correlated, a new variable z is introduced into the model, which satisfies

Cov(z,x)≠0 and Cov (z,u)=0.

Which of the following correctly defines Z?

a) Z is dummy variable
b) Z is lagged dependent variable
c) Z is instrumental variable
d) None of the above

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

8) *1 point*

Which of the following expressions doesn't define stochastic regressor correctly?

a. different explanatory variables can be correlated
b. If the Cov(X,u) = 0 condition holds true, then the condition E(u) = 0 is not required to be mentioned separately
c. The experimenter is aware of the values of the X variables in advance
d. The independent variables can have a joint probability distribution

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

9) *1 point*

Which of the following statement is TRUE / FALSE

A. Absence of heteroscedasticity and autocorrelation will ensure the error term to be IID random variable
B. According to Lindeberg-Feller CLT, if a large number of variables are influencing the error term and there is no specific dominating variable then the error term will follow a normal distribution

a. A is True, B is False
b. A is False, B is True
c. Both True
d. Both False

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
c

10) *1 point*

Which of the following statement is TRUE/ FALSE

If the condition Cov(X,u) is not satisfied then -

A. the estimator of the regression coefficient is going to be biased
B. the variance corresponding to the estimator of the regression coefficient isn't going to be minimum variance

a. A is True, B is False
b. A is False, B is True
c. Both False
d. Both True

a
b
c
d

No, the answer is incorrect.
Score: 0
Accepted Answers:
d