Question 1

Not yet answered

Marked out of 1.00

Given below is the output of a regression in JASP. Is the estimate b1 of the parameter β1 statistically significant at 5% confidence level?

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_0	(Intercept)	−12.421	1.755		−7.077	< .001
H_1	(Intercept)	−12.680	3.560		−3.562	0.001
	unemp	0.038	0.448	0.016	0.084	0.933

- a. it is significant since p-value < 0.05.
- b. it is not significant since p-value is 0.933.
- c. it is significant since p-value is 0.001.

Question 2

Not yet answered

Marked out of 1.00

Backward elimination eliminates variables one-at-a time from the original model until we cannot improve the adjusted R^2.

Select one:

- True
- False

Question 3

Not yet answered

Marked out of 1.00

A reference level is the level that does not receive a coefficient when fitting a regression model with a categorical variable that has k levels where k>2.

Select one:

- True
- False

Question 4

Not yet answered

Marked out of 1.00

Given below is the output of a regression in JASP.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_0	(Intercept)	−12.421	1.755		−7.077	< .001
H_1	(Intercept)	−12.680	3.560		−3.562	0.001
	unemp	0.038	0.448	0.016	0.084	0.933

The test statistics whose null value for the slope is 0 shows the value as T = $\frac{estimate-nullvalue}{SE}$

Select one:

- True
- False

Question 5

Not yet answered

Marked out of 1.00

What are common strategies for adding or removing variables in a multiple regression?

a. backward elimination

b. forward elimination

c. stepwise

- a. a and b
- b. a and c
- c. b and c
- d. a, b and c

Question 6

Not yet answered

Marked out of 1.00

Forward elimination is the process that starts with a model that has no predictors then add each variable one at the time until we cannot find any variables that import the adjusted R^2.

Select one:

- True
- False

Question 7

Not yet answered

Marked out of 1.00

Given below is the output of a regression in JASP. What is the least square regression line?

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_0	(Intercept)	−12.421	1.755		−7.077	< .001
H_1	(Intercept)	−12.680	3.560		−3.562	0.001
	unemp	0.038	0.448	0.016	0.084	0.933

- a. $\hat{y}$ = -12.680 + 0.038X
- b. $\hat{y}$ = -12.421 + 0.038X
- c. $\hat{y}$ = -12.421 + 0.448X

Question 8

Not yet answered

Marked out of 1.00

A regression is run with the response variable, the poverty percentage and the explanatory variable in the region (northeast, Midwest, west, south). Given the output below, which region is the reference level?

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	9.50	0.87	10.94	0.00
region4midwest	0.03	1.15	0.02	0.98
region4west	1.79	1.13	1.59	0.12
region4south	4.16	1.07	3.87	0.00

- a. Northeast
- b. Midwest
- c. West
- d. South

Question 9

Not yet answered

Marked out of 1.00

Collinearity is the correlation among predictors variables.

Select one:

- True
- False

Question 10

Not yet answered

Marked out of 1.00

Given below is the output of a regression in JASP.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H_0	(Intercept)	−12.421	1.755		−7.077	< .001
H_1	(Intercept)	−12.680	3.560		−3.562	0.001
	unemp	0.038	0.448	0.016	0.084	0.933

95% confidence interval of b1 for a degree of freedom (df) of 28 and (df) of 28 and t*df = 2.05 is $0.038 \pm 2.05 \times 0.448$

Select one:

- True
- False