

1) Multiple choice questions. Mark only one answer (a wrong answer will be graded negatively)

i) The dummy variables in a model of human capital can be used to:

- a) Study the behavior of the stochastic error term
- b) Identify an existing gender wage gap
- c) Determine that there is gender discrimination
- d) None of the above

ii) In the CLRM, u (the error term) is, among other things:

- a) The influence of the variables in the model
- b) Measurement errors or human error
- c) That which affects the var. dependent and can be observed
- d) None of the above

iii) When we say that there are variables that explain the model but have not been explicitly included in it, we would be addressing the problem:

- a) Heteroskedasticity
- b) Exogeneity
- c) Lack of normality of errors
- d) None of the above

iv) In the CLRM, the unbiasedness property of estimators means that:

- a) The mean value of the estimated coefficients is equal to the population
- b) The mean value of the estimated coefficients is different from the population
- c) The mean value of the error term is nonzero
- e) None of the above

2) From the following Eviews output window, answer the questions below using no more than the space provided:

Dependent Variable: LOG(WAGE)
 Method: Least Squares
 Date: 01/19/09 Time: 11:24
 Sample: 1 807
 Included observations: 807

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.794869	0.170428	45.73694	0.0000
EDUC	XXX	0.007857	7.578533	0.0000
AGE	0.059116	XXX	7.869387	0.0000
AGE^2	-0.000647	8.18E-05	-7.916456	0.0000
R-squared	0.163916	Mean dependent var	9.687316	
Adjusted R-squared	0.160793	S.D. dependent var	0.712696	
S.E. of regression	0.652888	Akaike info criterion	1.990123	
Sum squared resid	342.2893	Schwarz criterion	2.013386	
Log likelihood	-799.0147	F-statistic	52.47668	
Durbin-Watson stat	1.906575	Prob(F-statistic)	0.000000	

Log(WAGE): natural log of wages

EDUC: years of education

EDAD: age

EDAD^2: age squared

a) Calculate the missing information (XXX)

$$\hat{EDUC} = \underline{\hspace{2cm}}; \hat{\sigma}(AGE) = \underline{\hspace{2cm}}$$

b) Interpret the coefficients (but not the intercept), indicating whether they are significant and at which conventional level. How could you interpret the intercept, qualitatively wise?

c) Do you think there is serial correlation of errors? What statistic will give you a clue on such an issue? What consequences would bring on the estimation?
