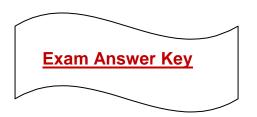
Master AC / Semester II

## Duration: 1h 30 min



## Part A - Interface (5 pts)

1- Write the names of the items indicated by the arrow in the following figure.

• Title bar

**2**main Menu

**3** comand window

Variable named educ as a time series type

Coefficient vector

**6** Variable named educ as a time series type

option View of workfile window Toolbar

**3** Work Area

Range and Number of observation

wage1: workfile

## Part B – Basic Concepts (5 pts)

1-List three types of data that can be analyzed with EViews.

1- Times series data- panel data- cross sectional data one point for each type of data (3 pts)

2- Define what a workfile is in EViews. What is its purpose?

- a. A workfile in EViews is basically a project file that contains all of the information, formulas, graphs, and other items you produce while conducting your study. (1pt)
- b. The main container for storing and arranging the data, findings, and objects associated with your research in EViews is a workfile. Everything you need to work with and manage your data, equations, models, and other analysis outputs is contained in what is effectively a project file. Your complete analytic session, including the data, approximated equations, and any other objects you created, can be saved and reloaded using workfiles. (1pt)

## Part C – Practical Application in EViews (10 pts)

You find below a window, a result of an equation estimation.

TBILL= -1273.54-0.1235\*IP-0.0162 \*M1+ 0.0017 \* SERIES01....(2pt)

- a) Try to give an estimated equation from appearing information in window above.
- b) Give the name of the estimation.: Multiple Regression (1.5pt)
- c) Can you conclude the existence of multicollinearity problem? No, there is not a multicollinearity problem. (1.5pt)
  - d) The **significance of independent variables** in a regression model can also signal the **presence of multicollinearity** which inflates the standard errors of coefficients, while a high residual variance (s-squared)
    may indicate a poor model fit.
  - e) The purpose of correlation matrix is to check if two (or more) independent variables have a high correlation (e.g. > 0.8 or < -0.8), this may indicate multicollinearity. This can make the regression coefficients unstable, difficult to interpret and statistically non-significant.
- f) Give the different steps using EViews, to display the correlation matrix. (2 pts)

Step 1: Open your project (workfile)

Launch EViews.

Open a working file (.wf1) containing your data.

Verify that your quantitative variables are present in the workfile.

Step 2: Select variables

In the workfile tree, Ctrl + left click on the variables you want to include in the matrix (e.g. X1, X2, X3).

Once selected, right-click > Open > as Group.

Step 3: Generate the correlation matrix

In the open variable group window:

Click on View (in the group window menu),

Then select Covariance/ Correlation.

In the window that opens, select Correlation.

This displays the Pearson correlation matrix between variables.

Step 4: Interpret the matrix

Each cell displays the correlation between two variables.