

**TEST- EMPA
(DEGREE IN ECONOMICS)
TERM 17/18
19.10.2017**

- 1.- Indicate "Test-EMPA 19.10.17" in each page.
- 2.- ERASE anything in the recycle Bin and in D:/ directory or in My Documents related to GAMS or EMPA.
- 3.- Do not indicate the name in any of the sheets delivered.
- 4.- Do not sign the sheets delivered.
- 5.- Relative importance of the questions: see % in each question.
- 6.- Do not show your answers when asking questions about the test.
- 7.- Sign the assistance sheet.
- 8.- You cannot pass the test if you fail two of the questions or if you leave a question unanswered.
- 9.- You are only authorized to use the GAMS program (including manuals and libraries), the virtual campus and Google translate.
- 10.- Please put FIRST your ID and then the name of the question as the name of the file. Do not upload any files not mentioned in your answers or any unnecessary files (*.lst, *.gpr, *.log etc). Do not upload zip files.
- 11.- Grades: 2nd November 2017 (20:00)
- 12.- Revision of test results: tutorials time during the first two weeks after the grades are published.
- 13.- Duration 120 minutes

QUESTION N. 1: (TOPIC 4: SAM) (1/3)

Using file QUESTION1.xls, to calculate 3 rounds of impacts from a 25 billion cedis increase (shock) in NON-agricultural production, and answer the questions in red at the end of the file..

(DNI_QUESTION1.xlsx)

QUESTION N. 2: (TOPIC 5: CALIBRATION (1/3))

Assuming you observe the following National Accounts data for an economy that produces two goods using Labor, Capital and Land, having one single consumer:

	Sector 1	Sector 2
Sector 1	200	
Sector 2		100
Labor	-30	-50
Capital	-90	-30
Land	-80	-20

2-A) Define, in calibrated share form, the zero-profit condition for sector 2, assuming a CES technology ($\delta = 0.6$).

2-B) Define, in calibrated share form, the market clearance condition for the land market of this economy (assuming Cobb-Douglas preferences).

2-C) Define in calibrated share form, the market clearance condition for the market of good1, both assuming utility is considered an activity or not. The utility function is supposed to be Cobb-Douglas.

QUESTION N. 3: (TOPIC 6: FTA (1/3))

In relation to the FTA model,

1.- Explain the meaning of the following equations:

- $meq(i,r)$
- $mftaeq(i,r)\$fta(r)$
- $xeq(i,r)$
- $xftaeq(i,r)\$fta(r)$

2.- Generate a FTA with regions 2 and 4 and answer the following questions

- Which regions are better off and which ones are worse off after the FTA? Why?
- Generate new elements of the rsummary that differentiate imports and exports from the ROW and the FTA, keeping the value of total X and M.
- Change all elasticities of demand to 3 and compare the results of the levels of Imports and Exports (Total, ROW and FTA) with the levels before changing the elasticities.

(DNI_QUESTION3.gms)