

Original

Examination: National Accounting

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Examiner:

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The following aids may be used: calculator, dictionary

Examination questions:

1. National Income Accounting deals with three different methods of measuring total product.
 - a) Explain briefly the three methods of measuring gross domestic product at market prices (GDP^m). Take into account the existence of a value added tax and an import tax.
 - b) Give one example for an application of each method.
 - c) Explain briefly how the following terms are related:
 - net wages and salaries
 - compensation of employees
 - net domestic product at factor costs
 - gross wages and salaries
 - compensation of property and entrepreneur.Give an economic interpretation for the first three terms listed above.

2. We observe the following activities in an economy that consists of a productive sector, a household sector, a government sector and a 'rest of the world'.
 - The capital stock of the economy is used up in the production process (80 EURO).
 - The government sector receives revenues from taxes on products (70 EURO) and transfers subsidies (20 EURO).
 - The productive sector exports goods and services (20 EURO) and imports goods and services (30 EURO).
 - The household sector purchases cars, food and services (1200 EURO).
 - The productive sector spends 400 EURO on new machines.
 - The government sector spends 200 EURO on infrastructure and 760 EURO on public health and education.
 - The United Nations transfers 10 EURO to resident households.
 - Resident households work abroad and earn 30 EURO.
 - a) Set up a simplified Consolidated System of Accounts and fill in the names of the accounts' entries and the corresponding numbers given in the text.
 - b) Calculate and interpret the following aggregates: gross domestic product at market prices, disposable national income, net borrowing/net lending abroad.

3. Economists often use the Consumer Price Index (CPI) and the Implicit Price Deflator (IPD) alternatively.

a) Calculate the CPI (base year : $t=0$) for the periods $t=1$ and $t=2$ using the following information.

<i>i</i>	<i>t=0</i>		<i>t=1</i>	<i>t=2</i>
	Q_{i0}	P_{i0}	P_{i1}	P_{i2}
1	15	4	6	8
2	4	15	15	15
3	20	24	36	48

i : product; *t* : period; Q_{it} : quantity of product *i* in period *t*; P_{it} : price of product *i* in period *t*

Interpret your results!

b) Explain the terms in the table below and calculate the IPD for household consumption for the periods $t=1$ and $t=2$.

	<i>t=0</i>	<i>t=1</i>	<i>t=2</i>
household consumption at current prices (in EURO)	2000	2640	3220
household consumption at $t=0$ constant prices (in EURO)	2000	2200	2300

Interpret your results!

c) Explain briefly the following biases in the CPI: commodity substitution bias, outlet substitution bias and new goods bias.