KÖZGAZDASÁGI ALAPISMERETEK (ELMÉLETI GAZDASÁGTAN) ANGOL NYELVEN

KÖZÉPSZINTŰ ÍRÁSBELI VIZSGA

2012. május 25. 8:00

Az írásbeli vizsga időtartama: 180 perc

<table>
<thead>
<tr>
<th>Pótlapok száma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tisztázati</td>
</tr>
<tr>
<td>Piszkozati</td>
</tr>
</tbody>
</table>

NEMZETI ERŐFORRÁS MINISZTÉRIUM
Important information

The test sheet is complex, broken down into sections according to the different types of questions. When working out the solution, please take into account the additional information in *italic font*. Please follow the instructions when answering the questions. Maximum score will only be given, if all subsections of the question have been answered.

Solutions and elaborations should be written on the test sheet. All drafts should be written on the additional pages provided. If the answer requires additional pages, please indicate this next to the relevant question. Pencils may be used to draw diagrams, the final solution, however; has to be finalised in pen.
Please use a ruler to draw precise diagrams.
You may only use non-programmable calculators during the written examination.

Good luck with your examination!
I. Test questions

I. Multiple choice questions (10·2 = 20 points)

We have provided four possible answers that correctly complete the statements below, but only one of these answers is correct. The other answers are either partially correct or completely wrong. Choose the letter corresponding to the correct answer and write it into the table below, into the field corresponding to the given question number.

Attention! Only one answer will be accepted. No points will be awarded for multiple or unclear answers.

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<td>8.</td>
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<td>10.</td>
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</table>

1. In economics, market is
   a) the place where we can only exchange goods for other goods.
   b) the interaction of demand and supply.
   c) Both.
   d) Neither.

2. If a consumer’s income decreases, then
   a) he/she buys equally less of everything.
   b) he/she will only purchase goods the price of which has dropped.
   c) maybe he/she will increase purchases of one of the goods.
   d) he/she will only change purchasing habits if something else becomes fashionable.

3. Let’s assume that on a perfectly competitive market, a company currently produces with the condition $P > AVC_{min}$. If price increases, then the optimal production of the company in question
   a) increases.
   b) decreases.
   c) remains unchanged.
   d) The information is not sufficient to tell.

4. It is typical of the operation of a monopoly that
   a) its marginal revenue is equal to the market price.
   b) it is price taking.
   c) its production possibilities are not restricted by anything.
   d) with optimal production, its marginal cost is lower than market price.

5. We are speaking of positive externality, if
   a) all economic players are looking to restrict their output activities.
   b) there are economic players who, due to this activity, are making extra profit at no cost to them.
   c) an economic player makes profit by selling at a price that is higher than its costs.
   d) social marginal cost is higher than social marginal utility.
6. The difference of GNI and GNDI is equal to
   a) depreciation.
   b) the balance of incoming and outflowing primary incomes.
   c) the balance of transfer flow.
   d) the difference of NDP and NNI.

7. The increasing of which of the following factors decreases investment demand?
   a) Profit expectations.
   b) Savings.
   c) Interest rate.
   d) Equilibrium income.

8. In a two-player economy, there is excess demand on the commodity market if
   a) S<I.
   b) S+I >Y.
   c) S+C= I.
   d) C+I < Y.

9. Which of the following statements is false?
   a) The sum of the number of employed and the number of unemployed is equal to the
      number of the active population.
   b) In case of unemployment, the decreasing of real wage could generate labour market
      equilibrium.
   c) There is unemployment if there is excessive supply on the labour market.
   d) We are speaking of total employment if there is equilibrium on the money market.

10. One of the factors of currency demand is
    a) capital import.
    b) commodity export.
    c) Both.
    d) Neither.
II. Written (Elaborative) Questions

1. True-false statements (6·2 = 12 points)

Decide whether the statements below are true or false. Please indicate your decision by writing the letters T (true) or F (false) in front of the statements. Unclear markings or crossed out letters will not be accepted.

ATTENTION! ALL ANSWERS HAVE TO BE EXPLAINED. All correct explanations are worth 1 point.

1) We know that the cross-price elasticity of the demand of pears and plums has a positive sign. If the price of pears increases, ceteris paribus the consumer buys more pears and fewer plums.

2 points

2) Each good’s demand is elastic because the consumer wants to consume even more.

2 points

3) The sum of implicit cost and normal profit is equal to economic cost.

2 points

4) With a given real income size, the marginal propensity to consume expresses the ratio of consumption and saving.

2 points

5) Budgetary deficit can be reduced with tax increases.

2 points

6) If in an open economic model, import exceeds export, then the savings of the rest of the world will have a positive sign.

2 points
2. Definitions (8 points)

Give a brief definition of the listed terms and economic phenomena.

A) The circulating medium function of money  

2 points

B) Money supply  

2 points

C) Money demand  

2 points

D) Demand-pull inflation  

2 points
3. Elaborative question (8 points)

Write down your answer, in which you name or list and explain the most important correlations in detail. Make sure your answer is clear, easy to understand, and structured according to content. Structure, group and emphasise your main thoughts according to the requirements of the question. If necessary, you may write down formulas or make diagrams.

Analyse the relationship of cost change and production change in the short-term. Illustrate the short-term cost functions, and present their interrelations. Prepare two diagrams for this purpose: one should show total cost functions, while the other unit/average cost functions. Explain the progression of the functions and the main correlations in writing.
4. Select the odd one out (6 points)

Using the figures given in the diagram, characterise the development of domestic inflation. In your solution, use the data shown in the diagram to answer the questions.

The diagram below illustrates the development of the domestic consumer price index in the period between 1985 and 2010. The diagram shows that during this time, changes of varying extent and direction happened in the country.

Using the diagram, determine the rate of inflation of the given years, then using this information, select the years or periods that should not be on the list and explain why. Circle the letter of the correct answer and provide a brief written explanation.

1) Select which year is the odd one out and explain your answer.
   a) 1986
   b) 1988
   c) 1989
   d) 1990

Explanation: ……………………………………………………………………………

2) Select which year is the odd one out and explain your answer.
   a) 1994
   b) 2002
   c) 2005
   d) 2008

Explanation: …………………………………………………………………………

Consumer price index (1985-2010)
3) Select which statement is the odd one out and explain your answer.
   a) There was no creeping inflation between 1985-2005.
   b) The years 1988 and 1989 were inflation-free as the consumer price index remained unchanged in both years.
   c) Between 1986-1990, inflation accelerated and transformed from creeping inflation into galloping inflation.
   d) According to the changing of the price index, between 1995-1999 prices in the national economy dropped significantly.

Explanation: ……………………………………………………………………………………...
5. Analysis and evaluation question (6 points)

The article below contains information on the wage differences of certain professions. In your solution, your task is to analyse the characteristics of the operation of the labour market from a micro-economic aspect, and you have to decide whether the statements below are true or false.

Lumberjacks have the lowest wages in Hungary
Seasonal forestry workers have the lowest wages in Hungary, while oil industry executives the highest—determined the Hungarian Central Statistical Office (HCSO). The average gross monthly wage of physical labourers in the forestry sector is HUF 98 100, while oil industry leaders make close to six times as much, HUF 624 700 – announced the Independent News Agency based on HCSO data. Among intellectual workers, employees in the healthcare sector make the least with monthly gross wages of 170 700 on average, followed by employees in education with HUF 203 900 and hospitality workers with HUF 210 200. After the oil industry, the next best paying jobs are in the financial and insurance sectors, where average gross monthly wages are HUF 456 300.
(Source: http://www.origo.hu/allas/aktualis/20110419)

5.1. The statistical data prove that employers pay different wages in various professions. What factors shape the wage differences between certain sectors or professions, and why are workforce shortage and workforce surplus such frequent phenomena on the labour market of a given profession? Evaluate the statements below keeping this in mind.

Determine which of the following statements is true and which is false, and then write the correct letter (T or F) in the empty field after the statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>True-False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The wage of various labour-types can never be the same, because they each require different skills and qualifications.</td>
<td></td>
</tr>
<tr>
<td>2) The wage difference between professions would cease to exist if employees would be willing to always work in higher wage professions.</td>
<td></td>
</tr>
<tr>
<td>3) In the long-term, the free flow and movement of workforce can balance out the wage differences between professions.</td>
<td></td>
</tr>
<tr>
<td>4) The acquisition of professional skills and knowledge has costs which are financed by the state; therefore, skilled employees can only receive lower wages.</td>
<td></td>
</tr>
<tr>
<td>5) The wage of a given labour-type will surely be higher than the average if there is shortage on the labour market of the profession in question.</td>
<td></td>
</tr>
<tr>
<td>6) Wages in the financial sector are higher than average because in recent decades the performance of this particular sector has grown dynamically.</td>
<td></td>
</tr>
</tbody>
</table>

Points scored
5.2. Briefly explain your answer for Question 3).
III. Calculation and Plotting Questions

*Follow the instructions indicated for each question carefully: complete the necessary calculations and/or prepare the diagrams according to the given specifications. Mark your answers with the number of the corresponding sub-question. In order to get maximum points, you have to answer all sub-sections correctly.*

**Question 6 (10 points)**

We are aware of the system of preferences of a consumer, which is illustrated by the indifference curves in the diagram below. The consumer has HUF **6400**, the price of good y is HUF **160**, and the price of good x is HUF **800**.

6.1. Write down the equation of the budget line and illustrate it within the coordinate-system below. Indicate the budget line as **I₀**.

6.2. Taking the consumer’s income situation as given, calculate the answers to the following questions. *Write the calculated values into the table.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much of good y can the consumer purchase maximum?</td>
<td></td>
</tr>
<tr>
<td>How much of good x can the consumer purchase if he/she purchases 20 pieces of good y and spends all his/her money on these two products?</td>
<td></td>
</tr>
</tbody>
</table>

6.3. The consumer’s *income has increased* and with unchanged prices he/she can now purchase a maximum of **12 pieces of good x**. Calculate the maximum amount that the consumer can purchase of good y with the new income.

6.4. Complete the table with the new budget line (indicate with **I₁**) and determine the consumer’s optimal choice.

*Write the values corresponding to the optimal choice on the dotted lines.*

   - quantity of good x: …………………….
   - quantity of good y: …………………….
6.5. With the new income, the price of good X becomes twice as much. Write down the equation of the new budget line and indicate it with a dashed line. Assess the impact of the price change and provide a brief written explanation.
Question 7 (10 points)

We know the following data regarding the production of a competing company:

<table>
<thead>
<tr>
<th>L (persons)</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q(pcs)</td>
<td>0</td>
<td>200</td>
<td>700</td>
<td>1500</td>
<td>2000</td>
<td>2400</td>
<td>2700</td>
<td>2800</td>
</tr>
</tbody>
</table>

We know that there is perfect competition on both the input and the output market. The unit price of labour is HUF 60 000. The costs of production are fully incurred by labour utilisation. The market price of the company’s product is HUF 2000.

7.1. Calculate the value of the
- marginal product,
- average product,
- marginal revenue product
    corresponding to the various input units.

*Complete the empty lines of the table.*

7.2. Determine how much the company produces in an optimal case and how much profit it is able to achieve.
**Question 8 (10 points)**

We are examining the income processes of an economy in a closed economy. We have grouped the data available according to the various economic players:

<table>
<thead>
<tr>
<th>Household</th>
<th>Company</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>$C = 4600$</td>
<td>$S_C = 5000$</td>
<td></td>
</tr>
<tr>
<td>$S_H = 500$</td>
<td>$T_C = 1900$</td>
<td>$S_S = 500$</td>
</tr>
<tr>
<td>$T_H = 1400$</td>
<td>$Y = 12600$</td>
<td></td>
</tr>
</tbody>
</table>

8.1. Place the data available on the current items accounts.

8.2. Complete the current items accounts and calculate the values of the following:
- wage,
- transfer provided to the household,
- government expenditure and
- investment.

8.3. Determine the income available to the household.
Question 9 (10 points)
The following data is available on the current state of an economy:

\[ C(Y) = 0.8Y + 1460; \ I(i) = 2700 - 10i; \]
\[ T = 1500, \ TR = 250, \ G = 940 \]
\[ M^D = 100 + 0.02Y - 10i; \ M^S = 2400; \ P = 6 \]
\[ L^D = 18000 - 30w/p; \ L^S = 7000 + 20w/p; \]

(In the functions, the variable \(i\) is equal to the interest rate, therefore, with an interest rate of 1\%, \(i = 1\).)

In the economy, there is equilibrium on the labour, commodity and money markets alike.

Calculate the following in an equilibrium situation

9.1. income,
9.2. interest rate,
9.3. consumption,
9.4. nominal wage, and
9.5. equilibrium value of employment.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Question number</th>
<th>Maximum points</th>
<th>Points Scored</th>
<th>Maximum points of topic</th>
<th>Points scored in topic</th>
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</thead>
<tbody>
<tr>
<td>Test Questions</td>
<td>Multiple choice questions 1–10.</td>
<td>20</td>
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<td>20</td>
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</tr>
<tr>
<td>Written (Elaborative) Questions</td>
<td>1. True-false statements</td>
<td>12</td>
<td></td>
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<td></td>
<td>2. Definitions</td>
<td>8</td>
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<td>3. Elaborative question</td>
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<td>4. Select the odd one out</td>
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<td>5. Analysis and evaluation question</td>
<td>6</td>
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<tr>
<td>Calculation and Plotting Questions</td>
<td>Question 6</td>
<td>10</td>
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<td>Question 7</td>
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<td>Question 8</td>
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<td>Question 9</td>
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**Points scored in written examination** 100

Correcting teacher

Date: .................................

Választásos, egyszerű rövid választ igénylő feladatok/ Test Questions

Szöveges (kifejtendő) feladatok/ Written (Elaborative) Questions

Számítást, ábrázolást igénylő feladatok/ Calculation and Plotting Questions

javító tanár/ Correcting teacher

jegyző/Notary

Dátum/Date: .................................