FINAP – test Name:

1. Based on data from the balance sheet and the profit/loss statement, calculate the values of selected ratios.

Balance statement (in 1000 €) **Profit/loss statement (in 1000 €)**

Item	2016	Item	2016
Total assets	143 196	Sales of goods	200
Fixed assets	76 885	Costs of goods sold	150
Tangible fixed assets	76 885	Sale margin	50
Current assets	66 311	Production	80 000
Inventories	25 000	Consumption from production	40 000
Short-term receivables	35 000	Value added	40 050
Cash & Bank accounts	6311	Staff costs	20 000
Equity & liabilities	143 196	Taxes and fees	1 000
Equity	105 697	Depreciation	12 862
Subscribed capital	60 000	Proceeds on sale of fixed assets	1 200
Retained profit	42 345	Net book value of fixed assets sold	1 000
Net profit	3 352	Profit/loss from operating activities	6 388
Liabilities	37 500	Interest income	0
Long-term liabilities	22 500	Interest expense	2 250
Bank credits	22 500	Profit/loss from financial activities	-2 250
Short-term liabilities	15 000	Income tax	786
		Profit/loss after tax	3 352

a) Return on assets

b) Inventory turnover period in days

c) Cash ratio

d) Wage productivity

2. The relationship between inputs and production can be described by a production function

$P = 60 \cdot DM^{0.4} \cdot PEP^{0.3}$. Assume long-term assets (production assets) in the amount of DM = 30,000 and PEP = 20.

a) Calculate average asset efficiency.

b) Calculate the marginal efficiency of assets.

c) Calculate the marginal rate of an asset substitution by workers.

d) Draw an isoquant function for the required production volume P = 70,000 and determine the required number of workers if the DM volume = 35,000.

3. The table below shows the production, price and unit cost of a product in two years. Calculate

a) the effect of the change in unit profit and production volume (in units of in-kind) on the absolute change in profit;

b) the effect of the change in cost-revenue ratio and volume of output (in monetary units) on the absolute change in cost.

Year	Production (pcs)	Price (CZK/piece)	Cost per unit (CZK/piece)	
2015	3,000	100	80	
2016	3,500	90	75	

4. Theory

a) Characterize the Coenenberg's system of indicators.

b) What is the meaning of Fisher's test theory of index numbers?

c) Define stock and interval indicators + examples.