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Macroeconomics

Exam 1

You have 75 minutes to complete this exam. Good luck!

1. (20 points) Behold the following information:

compensation of employees	5000
net interest	500
gross private domestic investment	800
private savings	400
net factor payments to rest of world	75
government purchases of goods and services	910
government spending	1235
net exports	-325
exports	800
corporate profits	620
depreciation	43
proprietors' income	679
(net) indirect business taxes	127
rental income	433

Use some of the above information to calculate

GDP _____

GNP _____

NI _____

private disposable income _____

2. (30 points) Behold the following table (an economy with only 2 final goods--bread and butter):

base year = 1996

Year	Bread		Butter		Real GDP	Nominal GDP	Nominal Wages	GDP Deflator
	Price	Quantity	Price	Quantity				
1995	\$1	10	_____	20	360	_____	74	75
1996	\$2	15	_____	10	_____	_____	84	_____

a) Fill in the blank spaces

b) Calculate the 1995-96 growth rate of production: _____

c) Has the purchasing power of wages risen or fallen during 1995-96? Support your answer with a calculation.

3. (20 points) Behold the following equation describing production in an economy

$$Y = 10K^{.4}N^{.6}$$

Currently, N is 1000 and K is 2000.

Calculate:

GDP _____

MPN _____

MPK _____

w/p _____

4. (10 points) Congressman A. Goofball says "our goal should be an unemployment rate of 0%." Evaluate Goofball's claim, and discuss three categories of unemployment in your response.

5. (10 points) A firm has an expected future marginal product of capital of
 $MPK^f = 500 - 5K$

The price of capital is 200, the real interest rate is 5% and the rate of depreciation is 15%

Calculate:
user cost of capital _____

desired capital stock _____

6. (10 points) An economy has full employment output of 10,000.

Desired consumption is $C^d = 5000 - 4000r + .1Y$

Desired investment is $I = 3000 - 8000r$

Government purchases are 2000

There is no foreign trade

a. Derive an equation relating S^d to r and Y

b. Calculate equilibrium (full employment) r