Econ 002- INTRO MACRO Prof. Luca Bossi   May 09, 2017
FINAL EXAM –SUGGESTED SOLUTIONS–

My signature below certifies that I have complied with the University of Pennsylvania's Code of Academic Integrity in completing this examination. In particular, I declare that I have not used a graphing calculator to complete this exam, nor notes and any material.

_____   _____   _____

Student Name (printed)   **PennID**   **Signature**

_____   _____

Your TA Name (printed)   **Your recitation number**

INSTRUCTIONS

The exam is closed book. It is composed of 40 multiple choice questions and three exercises. All multiple choice questions are worth 1.5 points (total is 60 points for the multiple choice part). You can detach the answer sheet for the MC part at the end of the exam if this is more comfortable for you. If that is the case, be sure to put your name on it and to tell your TA to staple it back to the exam when finished. If you do not fill in the MC part on time and request extra time at the end of the exam to write the answers up, a proctor will take your name and you will receive a penalty of 5 points. If you do not provide the required information (your name, PennID, signature, your TA name and recitation number) in the first page of the exam or you do not provide your name and TA name in the MC bubble page you will receive a penalty of 1 point.

ANSWER ALL QUESTIONS. TOTAL POINTS = 100. TOTAL TIME = 120 minutes

Provide your answers on the exam sheet directly. Read all questions very carefully. Write legibly.

EXAM TAKING POLICY

If you need to use the restroom, raise your hand and wait for the proctor to come to you. Only one person can be out of the examination room at a time, and the proctor will hold onto your exam papers while you are out at the restroom.

FOR THE DURATION OF THE EXAM, AND WITH THE EXCEPTION OF YOUR ALLOWED SCIENTIFIC CALCULATOR, YOU HAVE TO TURN OFF EVERYTHING ELSE THAT HAS A POWER BUTTON. NO CELL PHONES. NO BOOKS. NO NOTES. NO HELP SHEETS. NO TALKING TO EACH OTHER. YOU CANNOT CONNECT TO THE INTERNET.

NO ASKING THE PROCTORS ANY QUESTION OR HELP TO SOLVE THE EXAM.

WRITE IN PENCIL OR IN PEN AS YOU LIKE, BUT IF YOU WRITE IN PENCIL THERE IS NO POSSIBILITY FOR RE-GRADING. PLEASE FOLLOW THE INSTRUCTIONS AS TO HOW TO SUBMIT YOUR EXAM AT THE END OF THE 2 HOURS.

PLEASE DO NOT START THIS EXAM UNTIL INSTRUCTED TO DO SO.
GOOD LUCK!

To get full credits in the exercises below you really need to show your work. If you write just a number as the answer and even if that number is correct you will not get full credits in the exercise unless you show fully the formulas and your work (how you got that number and the steps involved in your computation).
EXERCISE I (13 POINTS TOTAL)
Use 2 decimal digits precision for all your computations in this exercise.
The table below displays the information about all goods and services produced in Ahch-To in various years.

Years	Tea		M&Ms		Ipad Mini	
	Price	Quantity	Price	Quantity	Price	Quantity
2014	4.25	3,000	1.25	1,000	400	1,000
2015	4.50	3,200	1.50	1,200	450	1,000
2016	5.00	4,000	2.00	1,500	500	1,000

a) (5 POINTS) Provide the generic formula for Nominal GDP and compute the Nominal GDP for each year.
b) (5 POINTS) Using 2016 as the base year, provide the generic formula for Real GDP and compute the Real GDP for each year.
c) (3 POINTS) This part is completely unrelated to the previous two parts of this exercise. Simply list (without explaining) the 6 costs associated with inflation we have covered in this course.

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Answers
a) NGDP values output using current prices. So the generic formula is

$$NGDP_t = P_t^{Tea} * Q_t^{Tea} + P_t^{M\&Ms} * Q_t^{M\&Ms} + P_t^{IpadM} * Q_t^{IpadM}$$

NGDP for 2014 = $4.25 *3,000 + $1.25*1,000 + $400*1,000= $414,000
NGDP for 2015 = $4.5*3,200+$1.5*1,200 + $450*1,000 = $466,200
NGDP for 2016 = $5*4,000+$2*1,500+$500*1,000 = $523,000

b) RGDP values output using base year prices. You are told the base year is 2016, so the generic formula is

$$RGDP_t = P_{2016}^{Tea} * Q_t^{Tea} + P_{2016}^{M\&Ms} * Q_t^{M\&Ms} + P_{2016}^{IpadM} * Q_t^{IpadM}$$

RGDP for 2014 = $5 *3,000 + $2*1,000 + $500*1,000= $517,000
RGDP for 2015 = $5*3,200+$2*1,200 + $500*1,000 = $518,400
RGDP for 2016 = NGDP for 2016 = $523,000

c) Shoe-leather costs, menu costs, misallocation of resources, confusion and inconvenience, tax distortions (after tax real interest rate), arbitrary redistribution of wealth.

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EXERCISE II (12 POINTS TOTAL)

Use 2 decimal digits precision for all your computations in this exercise.

The following table gives information about prices of the latest Samsung phone and the two exchange rates (nominal and real) in 3 different countries as of April 2017.

Country	Actual price (in local currency)	e	E
Mexico	18,999 MXN	18.51 MXN/USD	0.81
United States	799 USD	1 USD/USD	1
Italy	909 EUR	0.94 EUR/USD	0.83

a) (6 POINTS) In which country is the Samsung phone the most expensive in terms of dollars?

b) (2 POINTS) Assume that shipping a phone from the US to Mexico costs 50$. There are no other costs or problems in shipping phones across the border. How much would an individual profit if he/she were to re-sell 100 phones from US into Mexico?

c) (4 POINTS) Taking the price of the phone in the US in the table above as given, and taking the nominal and real exchange rates values in the table above as given, what should the predicted price of the Samsung phone in Mexico and Italy be? Is there a difference between those predicted prices and the actual prices of the phone listed above for those countries?

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Answers:

a) We only need to divide the price in the local currency by the nominal exchange rate.

$$\frac{P^F}{e} = \frac{foreign\ price\ in\ foreign\ currency}{\dfrac{foreign\ currency}{USD}} = foreign\ price\ in\ USD$$

The following table shows the answers.

Country	Actual Price	e	Price in USD
Mexico	18,999 MXN	18.51 MXN/USD	18,999 MXN/18.51 MXN/USD =1026.42 USD
United States	799 USD	1 USD/USD	799 USD
Italy	909 EUR	0.94 EUR/USD	909 EUR /0.94 EUR/USD = 967.02 USD

The country in which the Samsung phone is the most expensive is Mexico because 1026.42 > 967.02 > 799.

b) The total cost of buying the phone in the US and sending it to Mexico is $799 + $50 = $849 and the cost of buying it in Mexico City is $1026.42. So the potential profit on each unit is

1026.42 – 849 = $177.42

For 100 units, the profits would be = $177.42*100 = $17,742

c) We know the formula for the real exchange rate:

$$E = \frac{eP^{US}}{P^f}$$

And then

$$P^f = \frac{eP^{US}}{E}$$

Then we can calculate the prices that are implied by P^{US} and the real and nominal exchange rates values

Country	e	E	Predicted Price
Mexico	18.51 MXN/USD	0.81	799*18.51/0.81=18,258.63 MXN
Italy	0.94 EUR/USD	0.83	799*0.94/0.83=904.89 EUR

Notice that the predicted prices for the phone Italy and Mexico are always smaller than the actual prices at which the phone is sold as can be seen in this table.

Country	Actual Price	Predicted Price
Mexico	18,999 MXN	18,258.63 MXN
Italy	909 EUR	904.89 EUR

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EXERCISE III (15 POINTS TOTAL)

Use 3 decimal digits precision for all your computations in this exercise.

Consider the Solow growth model we have seen and studied in class with a production function given by

$$Y_t = AK_t + BK_t^\alpha L_t^{1-\alpha}$$

You are also given that n = 1%, A = 1, B = 0.5, d = 5%, s = 3%, and $\alpha = 0.25$. Where n stands for the population growth rate, B is one type of total factor productivity, A is an added factor productivity specific for capital, d is depreciation of capital, s is the saving rate, and α is the capital share. This is a closed economy.

a) (9 POINTS) Compute the per capita capital of steady state. Show your work: the 5 basic equations of the Solow model, and all the steps to derive the fundamental equation of the Solow model in this case.

b) (6 POINTS) The rate of return on capital, r, in this Solow model is given by

$$r = A + \alpha B \left(\frac{L_t}{K_t}\right)^{1-\alpha}$$

Where r is expressed already in percentage points. So if, for example, r = 10 then this implies that the return on capital is 10%.

In 2014 French Economist Thomas Piketty wrote a very provocative and influential book called "Capital in the Twenty-First Century". In this book he conjectures and speculates that whenever in any economy the rate of return on capital is higher than the growth rate of output we should observe increasing wealth inequality. The intuition Piketty's provides for his conjecture is that whenever the rate of return to those who own capital is higher than the growth rate of the whole economy, wealth eventually becomes more concentrated in the hands of those who own capital.

According to the Piketty's conjecture, does wealth inequality rise or fall in this Solow model in steady state? Prove your answer numerically.

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Answers

a) Let us write down the basic equations of the Solow model in this case

$$1)\ Y_t = AK_t + BK_t^\alpha L_t^{1-\alpha}$$
$$2)\ S_t = sY_t$$
$$3)\ I_t = S_t$$
$$4)\ K_{t+1} = I_t + (1-d)K_t$$
$$5)\ L_{t+1} = (1+n)L_t$$

The equation for accumulation of aggregate physical capital now becomes:

$$K_{t+1} = S_t + (1-d)K_t$$
$$= sAK_t + sBK_t^\alpha L_t^{1-\alpha} + (1-d)K_t$$

This in per capita terms becomes:

$$\frac{K_{t+1}}{L_{t+1}}(1+n) = sA\frac{K_t}{L_t} + sB\left(\frac{K_t}{L_t}\right)^\alpha + (1-d)\frac{K_t}{L_t}$$

with our convention for lower case variables the fundamental equation is:

$$k_{t+1}(1+n) = sAk_t + sBk_t^\alpha + (1-d)k_t = sBk_t^\alpha + (1-d+sA)k_t$$

In steady state we have that: $k_{t+1} = k_t = \bar{k}$. Substituting in the law of motion of capital in per capita terms we have

$$0 = sB\bar{k}^\alpha - (n + d - sA)\bar{k}$$

We can solve for Steady State $\bar{k}$ in the following steps. First write the above as

$$sB\bar{k}^\alpha = (n + d - sA)\bar{k}$$

Second dividing both sides by $\bar{k}$:

$$sB\bar{k}^{\alpha-1} = (n + d - sA)$$

Finally after rearrange for $\bar{k}$

$$\bar{k}^{\alpha-1} = \frac{n + d - sA}{sB}$$

$$\bar{k} = \left(\frac{n + d - sA}{sB}\right)^{\frac{1}{\alpha-1}}$$

This expression gives us the steady level capital per person as function of the fundamental parameters. Substitute for the numbers in the hypothesis to obtain the numerical answer.

$$\bar{k} = \left(\frac{0.01 + 0.05 - 0.03 * 1}{0.03 * 0.5}\right)^{\frac{1}{0.25-1}} = (2)^{\frac{1}{0.25-1}} = 0.397$$

b) This parts asks you to compare the rate of return of capital, r, in steady state with the rate of growth of output in steady state to check whether the Piketty's conjecture is true or not.

Let us rearrange the expression for the rate of return on capital

$$r = A + \alpha B \left(\frac{L_t}{K_t}\right)^{1-\alpha} = A + \alpha B \left(\frac{K_t}{L_t}\right)^{\alpha-1}$$

Substituting the value of parameters and the steady state value we get that the rate of return on capital of steady state is:

$$r = A + \alpha B\bar{k}^{\alpha-1} = 1 + 0.25 * 0.5 * (0.397)^{0.25-1} = 1.25$$

Since r is expressed already in percentage points, the rate of return on capital is 1.25%.

The last thing you needed to remember is that in steady state the Solow model predicts that output will grow at the rate of growth of the population. So Y grows at the rate of n = 1%.

Since 1.25% > 1%, then the Piketty conjecture holds and we should observe increasing wealth inequality in steady state in this economy.

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MULTIPLE CHOICE QUESTIONS

Identify the letter of the choice that best completes the statement or answers the question. Fill in the bubble with your answer in the answer sheet for the MC provided on the last page of the exam.

Table 1 The table below lists annual consumer price index and inflation rates for a country over the period 2005-2010. Assume the year 2005 is used as the base year.

Year	Consumer Price Index	Inflation Rate
2005	100	
2006	115	
2007	125	
2008	140	
2009		10%
2010	160	

1) Refer to Table 1. What is the inflation rate in 2008?
a.   12%
b.   15%
c.   32%
d.   40%

2) Refer to Table 1. What is the inflation rate in 2005?
a.   15%
b.   32%
c.   40%
d.   There is not enough information to answer this question

3) Refer to Table 1. What is the inflation rate in 2010?
a.   60%
b.   6%
c.   3.9%
d.   6.7%

4) You put money into an account and earn an after-tax real interest rate of 2.5 percent. If the nominal interest rate on the account is 8 percent and the inflation rate is 2 percent, then what is the tax rate on the nominal interest rate?
a.   28.00 percent
b.   36.25 percent
c.   43.75 percent
d.   67.50 percent

5) Given that inflation has risen people will
a.   demand more money so the price level rises.
b.   demand more money so the price level falls.
c.   demand less money so the price level rises.
d.   demand less money so the price level falls.

6) When the money market is drawn with the value of money on the vertical axis, if money supply and money demand both shift to the right
a.   the price level must have risen
b.   the price level must have fallen.
c.   the price level rises if money supply shifts farther than money demand.
d.   the price level falls if money supply shifts farther than money demand.

7) According to the quantity equation, the price level would change less than proportionately with a rise in the money supply if there was also
a.   either a rise in output or a rise in velocity.
b.   either a rise in output or a fall in velocity.
c.   either a fall in output or a rise in velocity.
d.   either a fall in output or a fall in velocity.

Table 2 - Use the (hypothetical) information in the following table to answer the following questions.
Metropolis National Bank

Assets		Liabilities	
Total Reserves	$60,000	Deposits	$500,000
Loans	$440,000		

8) Refer to Table 2. Metropolis National Bank is currently holding 2% of deposits as excess reserves. What is the reserve requirement?
a.   12 percent
b.   10 percent
c.   8 percent
d.   6 percent

9) Refer to Table 2. Metropolis National Bank is currently holding 2% of deposits as excess reserves. Assume that no banks in the economy want to hold excess reserves and that people only hold deposits and no currency. How much does the money supply ultimately increase when Metropolis National Bank lends out its excess reserves?
a. $100,000
b. $110,000
c. $120,000
d. None of the above are correct

10) Refer to Table 2. Metropolis National Bank is holding 2% of its deposits as excess reserves. Assume that no banks in the economy want to maintain holdings of excess reserves and that people only hold deposits and no currency. The Fed makes an open market purchases of $10,000 from an individual. The person who sold bonds to the Fed deposits all the funds in Metropolis National Bank. If the bank now loans out all its excess reserves, by how much will the money supply increase?
a. $190,000
b. $200,000
c. $240,000
d. None of the above are correct.

11) If the federal funds rate were above the level the Federal Reserve had targeted, the Fed could move the rate back towards its target by

a.   buying bonds. This buying would increase the money supply.
b.   buying bonds. This buying would reduce the money supply.
c.   selling bonds. This selling would increase the money supply.
d.   selling bonds. This selling would reduce the money supply.

12) If people decide to hold less currency relative to deposits, the money supply

a.   falls. The Fed could lessen the impact of this by buying Treasury bonds.
b.   falls. The Fed could lessen the impact of this by selling Treasury bonds.
c.   rises. The Fed could lessen the impact of this by buying Treasury bonds.
d.   rises. The Fed could lessen the impact of this by selling Treasury bonds.

13) To increase the money supply, the Fed can

a.   buy government bonds or increase the discount rate.
b.   buy government bonds or decrease the discount rate.
c.   sell government bonds or increase the discount rate.
d.   sell government bonds or decrease the discount rate.

14) If purchasing power parity holds, when a country's central bank increases the money supply, a unit of money

a.   gains value both in terms of the domestic goods and services it can buy and in terms of the foreign currency it can buy.
b.   gains value in terms of the domestic goods and services it can buy, but loses value in terms of the foreign currency it can buy.
c.   loses value in terms of the domestic goods and services it can buy, but gains value in terms of the foreign currency it can buy.
d.   loses value both in terms of the domestic goods and services it can buy and in terms of the foreign currency it can buy.

15) Suppose that the real exchange rate between the United States and Kenya is defined in terms of baskets of goods. Other things the same, which of the following will increase the real exchange rate (that is increase the number of baskets of Kenyan goods a basket of U.S. goods buys)?

a.   an increase in the number of Kenyan shillings that can be purchased with a dollar
b.   an increase in the price of U.S. baskets of goods
c.   a decrease in the price in Kenyan shillings of Kenyan goods
d.   All of the above are correct.

16)   Suppose the world had only two countries and domestic residents of country A purchased $50 billion of assets from country B and country B purchased $30 billion of assets from country A. What would the net capital outflows of both countries be?

a. $50 billion for country A and $30 billion for country B
b. $30 billion for country A and $50 billion for country B
c.   -$20 billion for country A and $20 billion for country B
d. $20 billion for country A and -$20 billion for country B

17) A Mexican firm exchanges Pesos for U.S. dollars and then uses these dollars to purchase corn from the U.S. This transaction

a.   increases Mexican net capital outflow, and increases U.S. net exports.
b.   increases Mexican net capital outflow, and decreases U.S. net exports.
c.   decreases Mexican net capital outflow, and decreases U.S. net exports.
d.   decreases Mexican net capital outflow, and increases U.S. net exports.

18) If a country had capital flight, then the real exchange rate would

a.   fall. To offset this fall the government could increase the budget deficit.
b.   fall. To offset this fall the government could decrease the budget deficit.
c.   rise. To offset this rise the government could increase the budget deficit.
d.   rise. To offset this rise the government could decrease the budget deficit.

19) During the financial crisis it was proposed that firms be provided with a government incentive for investment projects. Such incentive would

a.   shift both the demand for loanable funds and the supply of dollars in the market for foreign-currency exchange right
b.   shift the demand for loanable funds right and shift the supply of dollars in the market for foreign-currency exchange left
c.   shift the demand for loanable funds left and shift the supply of dollars in the market for foreign-currency exchange right
d.   shift both the demand for loanable funds and the supply of dollars in the market for foreign-currency exchange left

20) The country of Frequencia is politically very stable and has a long tradition of respecting property rights. If several other countries suddenly became politically unstable, we would expect Frequencia's

a.   real interest rate to rise.
b.   real exchange rate to fall.
c.   net exports to fall.
d.   None of the above is likely.

21) If a country removed an import quota on cotton, then overall that country's

a.   exports and imports would rise.
b.   exports would rise and imports would fall.
c.   exports would fall and imports would rise.
d.   exports and imports would fall.

22) Which of the following contains a list only of things that increase when the budget deficit of the U.S. increases?

a.   U.S. supply of loanable funds, U.S. interest rates, U.S. domestic investment
b.   U.S. imports, U.S. interest rates, the real exchange rate of the dollar
c.   U.S. interest rates, the real exchange rate of the dollar, U.S. domestic investment
d.   the real exchange rate of the dollar, U.S. net capital outflow, U.S. net exports

23) Gina, a U.S. citizen, works only in Bermuda. The value of Gina's production is included in

a.   U.S. GNP and Bermudan GDP.
b.   U.S. GDP and Bermudan GNP.
c.   U.S. GDP and Bermudan GDP.
d.   U.S. GNP and Bermudan GNP.

24) Household spending on education is included in

a.   consumption, although it might be argued that it would fit better in investment.

b.   investment, although it might be argued that it would fit better in consumption.

c.   government spending, based on the fact that most higher-education students attend publicly-supported colleges and universities.

d.   None of the above is correct; in general, household spending on services is not included in any component of GDP.

25) Quality Motors is a Japanese-owned company that produces automobiles; all of its automobiles are produced in American plants. In 2008, Quality Motors produced $25 million worth of automobiles and sold $12 million in the U.S. and $13 million in Mexico. In addition, it sold $2 million from the previous year's inventory in the U.S. The transactions just described contribute how much to U.S. GDP for 2008?

a. $12 million

b. $14 million

c. $25 million

d. $27 million

26) If the number of workers in an economy doubled, all other inputs and TFP stayed the same, and there were constant returns to scale, labor productivity would

a.   fall to less than one-half of its former value.

b.   fall, but it would still be greater than one-half of its former value.

c.   stay the same.

d.   rise but less than double.

27) Last year the imaginary country of Bahkan had a population of 10,000, 6,000 people worked 8 hours a day and produced a real GDP of $30,000,000. The imaginary country of San Andreo had a population of 15,000, 8,000 people worked 7 hours a day and produced a real GDP of $33,000,000. Which of the following is correct?

a.   Bahkan had the higher labor productivity and the higher real GDP per person.

b.   San Andreo had the higher labor productivity and the higher real GDP per person.

c.   Bahkan had the higher labor productivity while San Andreo had the higher real GDP per person.

d.   San Andreo had the higher labor productivity while Bahkan had the higher real GDP per person.

28) Wealth is redistributed from creditors to debtors when inflation was expected to be

a.   high and it turns out to be high.

b.   low and it turns out to be low.

c.   low and it turns out to be high.

d.   high and it turns out to be low.

29) For a closed economy, GDP is $12 trillion, consumption is $7 trillion, taxes net of transfers are $3 trillion and the government runs a deficit of $1 trillion. What are private saving and national saving?

a. $5 trillion and $3 trillion, respectively

b. $5 trillion and $1 trillion, respectively

c. $2 trillion and $3 trillion, respectively

d. $2 trillion and $1 trillion, respectively

Table 3   2010 Labor Data for Adults (age 16 and older) in Meditor

Males not in labor force	45 million
Females not in labor force	35 million
Males unemployed	5 million
Females unemployed	5 million
Males employed	85 million
Females employed	65 million

30) Refer to Table 3. What is the adult male unemployment rate in Meditor?
a.   3.7 percent
b.   5.6 percent
c.   6 percent
d.   7 percent

31) Refer to Table 3. What is the adult male labor-force participation rate in Meditor?
a.   37 percent
b.   66.7 percent
c.   73 percent
d.   96.3 percent

32) Refer to Table 3. What is the adult female population in Meditor?
   a.   40 million
   b.   70 million
   c.   100 million
   d.   105 million

33) Refer to Table 3. What is the adult female labor force in Meditor?
   a.   40 million
   b.   65 million
   c.   70 million
   d.   100 million

34) Consider three different closed economies with the following national income statistics. Country A has taxes of $40 billion, transfers of $20 billion, and government expenditures on goods and services of $30 billion. County B has private savings of $60 billion, and investment expenditures of $40 billion. Country C has GDP of $300 billion, investment of $90 billion, consumption of $180 billion, taxes of $60 billion and transfers of $20 billion. From this information, we know that
a.   country A has the largest government budget deficit.
b.   country B has the largest government budget deficit.
c.   country C has the largest government budget deficit.
d.   The government budget deficit is equal in all three countries.

35) Suppose you are deciding whether or not to buy a particular bond for $5,980.17. If you buy the bond and hold it for 5 years, then at that time you will receive a payment of $10,000. You will buy the bond today if the interest rate is
a.   no less than 9.48 percent.
b.   no greater than 9.48 percent.
c.   no less than 10.83 percent.
d.   no greater than 10.83 percent.

36) Jarrod says that the future value of $250 saved for one year at 6 percent interest is less than the future value of $250 saved for two years at 3 percent interest. Simon says that the present value of a $250 payment to be received in one year when the interest rate is 6 percent is less than the value of a $250 payment to be received in two years when the interest rate is 3 percent.

a.   Jarrod and Simon are both correct.
b.   Jarrod and Simon are both incorrect.
c.   Only Jarrod is correct.
d.   Only Simon is correct.

37) John is a stockbroker. He has had several job offers, but he has turned them down because he thinks he can find a firm that better matches his tastes and skills. Curtis has looked for work as an accountant for some time. While the demand for accountants does not appear to be falling, there seems to be more people applying than jobs available.

a.   John and Curtis are both frictionally unemployed.
b.   John and Curtis are both structurally unemployed.
c.   John is frictionally unemployed, and Curtis is structurally unemployed.
d.   John is structurally unemployed, and Curtis is frictionally unemployed.

Scenario 1 Quinn has job offers in Wrexington and across the country in Charlieville. The Wrexington job would pay a salary of $50,000 per year, and the Charlieville job would pay a salary of $40,000 per year. The CPI in Wrexington is 150, and the CPI in Charlieville is 90.

38) Refer to Scenario 1. The Wrexington salary in Charlieville dollars is

a. $30,000.00.
b. $33,333.33.
c. $45,000.00
d. $83,333.33.

39) Refer to Scenario 1. The Charlieville salary in Wrexington dollars is

a. $24,000.00.
b. $26,666.67.
c. $60,000.00
d. $66,666.67.

40) Refer to Scenario 1. If Quinn only cares about maximizing her purchasing power, then she should

a.   take the Charlieville job.
b.   take the Wrexington job.
c.   take either job because they both have the same purchasing power.
d.   The answer cannot be determined from the information given because a salary is not the same as purchasing power.

YOUR NAME: _____   YOUR TA's NAME:_____

FILL IN THE BUBBLE WITH THE LETTER OF YOUR CHOICE FOR THE MULTIPLE CHOICE QUESTIONS
ONLY THIS PAGE WILL BE GRADED FOR THE MC PART.

1.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
2.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
3.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
4.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
5.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
6.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
7.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
8.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
9.   Ⓐ   Ⓑ   Ⓒ   Ⓓ
10. Ⓐ   Ⓑ   Ⓒ   Ⓓ
11. Ⓐ   Ⓑ   Ⓒ   Ⓓ
12. Ⓐ   Ⓑ   Ⓒ   Ⓓ
13. Ⓐ   Ⓑ   Ⓒ   Ⓓ
14. Ⓐ   Ⓑ   Ⓒ   Ⓓ
15. Ⓐ   Ⓑ   Ⓒ   Ⓓ
16. Ⓐ   Ⓑ   Ⓒ   Ⓓ
17. Ⓐ   Ⓑ   Ⓒ   Ⓓ
18. Ⓐ   Ⓑ   Ⓒ   Ⓓ
19. Ⓐ   Ⓑ   Ⓒ   Ⓓ
20. Ⓐ   Ⓑ   Ⓒ   Ⓓ
21. Ⓐ   Ⓑ   Ⓒ   Ⓓ
22. Ⓐ   Ⓑ   Ⓒ   Ⓓ
23. Ⓐ   Ⓑ   Ⓒ   Ⓓ
24. Ⓐ   Ⓑ   Ⓒ   Ⓓ
25. Ⓐ   Ⓑ   Ⓒ   Ⓓ
26. Ⓐ   Ⓑ   Ⓒ   Ⓓ
27. Ⓐ   Ⓑ   Ⓒ   Ⓓ
28. Ⓐ   Ⓑ   Ⓒ   Ⓓ
29. Ⓐ   Ⓑ   Ⓒ   Ⓓ
30. Ⓐ   Ⓑ   Ⓒ   Ⓓ
31. Ⓐ   Ⓑ   Ⓒ   Ⓓ
32. Ⓐ   Ⓑ   Ⓒ   Ⓓ
33. Ⓐ   Ⓑ   Ⓒ   Ⓓ
34. Ⓐ   Ⓑ   Ⓒ   Ⓓ
35. Ⓐ   Ⓑ   Ⓒ   Ⓓ
36. Ⓐ   Ⓑ   Ⓒ   Ⓓ
37. Ⓐ   Ⓑ   Ⓒ   Ⓓ
38. Ⓐ   Ⓑ   Ⓒ   Ⓓ
39. Ⓐ   Ⓑ   Ⓒ   Ⓓ
40. Ⓐ   Ⓑ   Ⓒ   Ⓓ