ECONOMICS 101A  FINAL EXAMINATION  (3 Hour Exam)  NAME:  ANSWERS  12 April 2017

A. Multiple Choice (80 pts) Place ONLY one A, B, C, D or E in the space provided.

1. B. In a certain country, people can produce up to 20 units of coconuts or up to 60 units of fish. What does this say about the production possibility curve? (Assume constant costs)
   A. The point Coconuts=10 and Fish=40 is “inefficient” (not using the country’s resources wisely).
   B. The point Coconuts=10 and Fish=40 is not possible (the country doesn’t have enough resources).
   C. The point Coconuts=10 and Fish=40 is possible but not the best point to be at.
   D. The point Coconuts=10 and Fish=40 is possible and better than Coconuts=5 and Fish=45.
   E. The point Coconuts=10 and Fish=40 maximizes gains from trade.

2. C. If the price of orange juice rises, it is likely that:
   A. The supply of orange juice will shift to the right.
   B. The demand for orange juice will shift to the left.
   C. The demand for apple juice will shift to the right.
   D. The demand for apple juice will shift to the left.
   E. The supply of apple juice will shift to the right.

3. D. A shift of the supply curve for apples is caused by:
   A. A change in the taste for apples. X
   B. A change in the price of apples. X
   C. A change in income. X
   D. A change in the cost of growing apples.
   E. All of the above.

4. C. One art object will "cost" more to make (not necessarily have a higher price) than a second art object if:
   A. The first object took an artist more time to make than the second object took a second artist.
   B. The first object was more difficult for one artist to make than the second object was for the second artist.
   C. The first object was produced with resources that had higher alternate uses than the second object.
   D. The first object is more desired by the public than the second object.
   E. The first object was made by a more famous artist than the artist of the second object.

5. D. In Vancouver, most stores contain most of the items we want to buy when we want to buy them. This indicates that in Vancouver:
   A. Most goods are not scarce.
   B. There are surpluses for most goods.
   C. Our government has been doing a good job of coordinating production and distribution.
   D. For the most part we allow prices to rise and fall indicating with their prices how scarce most goods are.
   E. The prices for most goods in Vancouver are above their equilibrium levels.

6. A. If we pass a law to keep the wages of workers above their equilibrium price, then:
   A. Workers will likely have to offer extra non-market services (extra qualifications, extra attitude) to be chosen.
   B. More workers will have jobs.
   C. Unemployment will likely decrease.
   D. There will be a shortage of workers.
   E. The workers most affected by such a law will be sports stars, movie stars, doctors and lawyers.

7. E. For the equilibrium quantity produced, the area below the price and above the supply curve is called:
   A. The value of production.
   B. The cost of production.
   C. The total gains from trade.
   D. The consumer surplus.
   E. The producer surplus.
8. If we want to increase sales of X from 10 to 11, we have to lower the price of X from 15 to 14. What is the marginal revenue from doing this?

A. $4  
B. $10.5  
C. $14.5  
D. $76  
E. $52

9. A price searcher (monopoly) chooses to produce at a price and output where the marginal revenue is greater than marginal cost. This means:

A. The monopoly should lower the price to make more profit.  
B. The monopoly should raise the price to make more profit.  
C. The monopoly is losing money (making a negative profit).  
D. This is normal and could be the best price and output for this monopoly.  
E. This company should find a way to reduce costs if it wants to earn a profit.

10. A law that forces a company to stop “predatory pricing”:

A. Helps consumers by lowering prices.  
B. Helps the company’s competitors by not having to find ways to lower costs to stay in business.  
C. Helps the company by making it easier to make higher profits.  
D. Helps the government by earning them higher tax revenues.  
E. All of the above.

11. A rise in the inflation rate:

A. Increases real income if wages rise faster than the inflation rate.  
B. Causes real income to decrease.  
C. Redistributes income from the wealthy to the poor.  
D. Redistributes income from the poor to the wealthy.  
E. Causes the value of money to increase.

12. A rise in the participation rate:

A. Causes the unemployment rate to rise.  
B. Causes the unemployment rate to decrease.  
C. Causes the unemployment rate to rise if the population doesn’t change.  
D. Causes the unemployment rate to decrease if the number of people employed remains the same.  
E. Causes the unemployment rate to rise if the number of people employed remains constant.

13. If the nominal GDP rises faster than the implicit GDP deflator:

A. The economy will be in a recession.  
B. The average standard of living is likely increasing.  
C. Inflation is outpacing real economic growth.  
D. The unemployment rate must be rising.  
E. The economy will have a deficit.

14. When Y_n > Y_f, where are we on the Phillips curve?

A. Low inflation and low unemployment.  
B. Low inflation and high unemployment  
C. At the natural rate of inflation and unemployment.  
D. High inflation and low unemployment.  
E. High inflation and high unemployment.

15. At Yf=2000, P=100. Y_Ad=1000+4(G-T)+8(Ms)-10P. Currently G-T=250 and M=100. To get to full employment we should use:

A. Expansionary monetary policy (%ΔM=50%)  
B. Contractionary monetary policy (%ΔM= -50%)  
C. Expansionary fiscal policy (G-T=300)  
D. Contractionary fiscal policy (G-T=100)  
E. Expansionary monetary policy (%ΔM=50%) and contractionary fiscal policy (G-T=100)
Currently the debt is $1000, the interest on debt is 10%, total tax revenue is $400 and non-interest spending is $500. What is the debt going to be the following year?

A. $1200  B. $1000  C. $800  D. $200  E. Negative $200

17. M2 is:

A. The sum of cash outside banks, demand deposits and savings accounts.
B. The sum of cash outside banks, personal demand deposits and personal savings accounts.
C. The sum of cash outside banks and demand deposits.
D. The sum of cash outside banks, demand deposits and near bank deposits.
E. The sum of cash outside banks, demand deposits and personal savings accounts.

18. When the Bank of Canada buys a government T-bill from the public:

A. This decreases the wealth of the public.
B. This temporarily pushes the nominal interest rate above what it would otherwise be.
C. This increases the money supply.
D. This will cause a temporary recession.
E. This is expansionary fiscal policy.

19. If a country puts a tariff (an import tax) on a foreign product, this will

A. Cause the country to spend more resources on products they used to import.
B. Increase the consumer surplus for consumers of the import.
C. Decrease the producer surplus for domestic competitors of the imported product.
D. Decrease the current account (if imports fall faster than exports).
E. Cause more employment for exporters and less employment for importers.

20. A rise in Canada's exchange rate is likely caused by:

A. A decrease in the demand for Canada's exports.
B. An increase in investment outflows.
C. A rise in Canada's current account deficit.
D. A increase in the Canadian demand for foreign stocks and bonds.
E. An increase in the government holdings of foreign reserves.

B. Calculations (80 pts) SHOW WORK NEATLY IN THE SPACE BELOW OR ON THE ATTACHED PAPER. NO PARTIAL CREDIT WITHOUT SUPPORTING WORK.

1. (44 pts) Demand and Supply. Here is information from Vancouver’s apple market:

- Price per unit: 12 24 36 48 etc.,
- Quantity demanded: 8 6 4 2 etc.,
- Quantity supplied: 4 10 16 22 etc.,

\[ Q^d = 12 - \frac{P}{2} \]
\[ Q^s = -2 + \frac{P}{2} \]
\[ P = 18 \]
\[ Q^d = 0, Q^s = 7 \]
\[ \frac{\Delta Q}{\Delta P} = \frac{12}{2} = 6 \]
\[ \frac{\Delta Q}{\Delta P} = \frac{6}{12} = 0.5 \]
\[ P^e = 6 \]
\[ Q^d = 6, Q^s = 0 \]
\[ \text{Consumer surplus at equilibrium: } 16 \]
\[ \text{Producer surplus if price ceiling at } P = $16: \]
\[ \text{Waste (DLW) if price ceiling at } P = $16: \]

(continued next page)
4. Nominal vs Real (5 pts) What is the inflation rate if the GDP in current dollars increased by 8.7% while the GDP in base year prices (2012=100) increased from $156.8 bn to $162.0 bn?

4.1. What is the real growth rate from 2015 to 2016 (2016 is the base year)?

\[
\frac{18.9}{164.1} = 9.52\%
\]

4.2. What is the CPI for 2015 (2016 is the base year)?

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\text{CPI}_i = \left( \frac{185}{165} \right)_{100} = \left( \frac{9.1}{185} \right)_{100} = 0.057
\]

4. Nominal vs Real (5 pts) What is the inflation rate if the GDP in current dollars increased by 8.7% while the GDP in base year prices (2012=100) increased from $156.8 bn to $162.0 bn?

\[
\frac{162}{156.8} = 1.033 = 1.052
\]

5. Trade (18 pts) The people living in Country A can produce up to 9 units of coconuts or up to 18 units of fish. The people living in Country B can produce up to 12 units of coconuts or up to 4 units of fish. In both countries, people like to have equal numbers of coconuts and fish.

3. \( F = C = 6 \) a. Before trade, how many coconuts and fish will people in country A be consuming?

4. \( F = C = 3 \) b. Before trade, how many coconuts and fish will people in country B be consuming?

5. \( C = 2, F = 14 \) c. If the countries think they are going to trade how many coconuts and fish will be produced in Country A?

6. \( C = 0, F = 12 \) d. How many coconuts and fish will be produced in country B?

7. \( A \rightarrow C: 1 \rightarrow 8 \) e. If the countries trade, how many coconuts and fish will be consumed in each country?
C. Two Short Explanations (16 pts) Write a short paragraph for each of the following questions. (Diagrams will help) PLEASE USE ATTACHED LINED SHEETS.

1. If we bring in a price ceiling (i.e. rent control for apartments), economists argue their will be “dead weight loss”. What exactly is the dead weight loss? Give an example in words of dead weight loss from rent control.

2. What does “counter-cyclical fiscal policy” mean? What is the name of the group of economists who think it is a good idea and what is the name of the group of economists who think it is not a good idea?

D. TWO ESSAYS (24 pts) No more than 250 words each Choose ONLY ONE MICRO topic and ONLY ONE MACRO topic. Diagrams will help. PLEASE USE ATTACHED LINED SHEETS.

MICRO Topics (Choose one):
1. Do you think it would be a good idea to make public transportation (the buses, Skytrain, Seabus, etc.,) free (i.e. riders pay nothing)? Why or why not?

2. Shopping for drinks is very confusing. The drinks come in so many different sizes that it is often difficult to tell what is the best value for the money we pay. Do you think it would be a good idea to pass a new law requiring all drink companies to sell their drinks in standard sizes (i.e. small=250 ml, medium=500 ml, large=1 litre, extra large=2 litres). Could such a law harm you? Would you be in favour of such a law? Why or why not?

MACRO Topics (Choose one):
1. Because the Bank of Canada does not think the Canadian economy is doing very well, it is keeping Canadian interest rates at a very low level. (Canada’s bank rate – the rate at which the Bank of Canada lends funds to Canadian banks—is currently 0.75%) What economists think this policy is helpful? What economists worry that such a policy might injure the Canadian economy? What type of problems does this second group of economists think that Canada’s low interest rates might cause?

2. Some American politicians think that trade with Mexico and China is hurting the US economy because the US has a “trade deficit” with these countries. Why do most economists think that such a deficit is nothing to worry about?

1. Deadweight loss means resources are not being used where they create the highest value to consumers. If there is rent control, some land and buildings will be used to produce a different good (e.g. gas stations etc.) when consumers are telling us they would prefer apartments to these other uses.

2. Countercyclical means against the cycle. When the economy is growing slowly, countercyclical policy would boost the economy. When the economy is growing strongly, countercyclical policy would slow it down. Fiscal policy means using the government budget to change economic conditions. Countercyclical fiscal policy means, GDP when the economy is growing too slowly and T>6, when policy means, GDP when the economy is growing too fast. Keynesian belief that countercyclical fiscal policy is a good way to improve the economy over time. New Classical economists have many ideas about the effectiveness of these different policies.
Micro

1) If you make public transports "free" it will increase. You also won't easily determine what the resources used to provide the service are what customers must want. Politicians will decide how much service to provide and over time there is less incentive to make the different choices that bring innovations and improvements in cost.

How to pay→ paid by users or paid by taxpayers? No free lunch→ someone has to pay.

2) There is no "best" size and companies cheap experimentally to find out what best serves customers. If customers are concerned about company costs per unit then are cheaper ways (phone apps) than forcing all drink sellers to standardize sizes.

Macro

1) Keynesians think keeping interest rates low during periods of slow growth beneficial is very useful. They think this will encourage investment and consumption. New Classical economists worry that such policy leads to the worst type of over-invested glut could harm the economy. They also worry about whether the expansionary monetary policy will lead to loss of faith in the currency (i.e. inflation).

2) Because CA+KA=0. If a country has a trade deficit, their partners are buying assets (either real assets or promises to give up future savings). Also people buy goods because they receive a benefit. Both sides gain in a trade and benefit. Too (consumer surplus) when they buy a foreign product.