Econ 105: Principles of Macroeconomics
Quiz III (Version a), 15 March 2018

Part A: Choose the best answer for the following 15 questions. Make only one choice for each question. (30 marks)

1. An increase in investment leads to _______ in the price level and _______ in real GDP in the short run.
   A) an increase; no change
   B) a decrease; no change
   C) no change; no change
   D) an increase; an increase

2. When the aggregate price level increases, the purchasing power of many assets falls, causing a decrease in consumer spending. This is known as the _______ effect and is a reason why the _______ curve slopes _______.
   A) interest rate; aggregate demand; downward
   B) wealth; aggregate demand; downward
   C) interest rate; investment demand; downward
   D) wealth; short-run aggregate supply; upward

3. The interest rate effect is the tendency for changes in the price level to affect:
   A) the quantity of investment demanded and thus affect interest rates.
   B) export demand and thus affect aggregate demand.
   C) interest rates and thus affect the quantity of investment and consumption demanded.
   D) real incomes and lead to shifts in potential output.

4. Which of the following is NOT true about the aggregate demand curve?
   A) A rise in the price level lowers real wealth and results in a lower level of consumer spending.
   B) A rise in the price level increases the demand for money, raises the interest rate, and reduces investment spending.
   C) A fall in the price level will generally lead to a rise in the level of aggregate output demanded.
   D) A fall in the price level will reduce the demand for money, raise the interest rate, and increase investment spending.
Use the following to answer questions 5-6:

**Figure: The Multiplier**

5. If this economy is currently at $Y_1$ and the price level decreases, then:
   A) $AD_1$ will shift to the left, reflecting a multiplied decrease in the real GDP at every price level.
   B) $AD_1$ will shift to the right, reflecting a multiplied increase in the real GDP at every price level.
   C) an upward movement along the $AD_1$ will take place, reflecting an increase in the price level.
   D) a downward movement along the $AD_1$ will take place, reflecting a decrease in the price level.

6. If this economy is currently at $Y_1$ and investment spending increases, then:
   A) $AD_1$ will shift to the left, reflecting a multiplied decrease in the real GDP at every price level.
   B) $AD_1$ will shift to the right, reflecting a multiplied increase in the real GDP at every price level.
   C) an upward movement along the $AD_1$ will take place, reflecting an increase in the price level.
   D) a downward movement along the $AD_1$ will take place, reflecting a decrease in the price level.
7. Suppose that the stock market crashes. Which of the following is most likely to occur?
   A) the aggregate demand curve shifts to the right
   B) the aggregate demand curve shifts to the left
   C) a movement up the aggregate demand curve
   D) a movement down the aggregate demand curve

8. As a result of a decrease in the value of the Canadian dollar in relation to other currencies, Canadian imports decrease and exports increase. Consequently, there is:
   A) an increase in short-run aggregate supply.
   B) a decrease in the quantity of aggregate output supplied in the short run.
   C) an increase in aggregate demand.
   D) a decrease in the quantity of aggregate output demanded.

9. If the stock of physical capital becomes larger then, all other things unchanged, the aggregate demand curve will:
   A) shift to the right.
   B) shift to the left.
   C) remain constant.
   D) become positively sloped.

10. Suppose that there is a federal election and that the newly elected party has promised large personal income tax cuts. Which of the following is most likely to occur?
    A) a decrease in short-run aggregate supply
    B) a decrease in aggregate demand
    C) an increase in short-run aggregate supply
    D) an increase in aggregate demand

11. Nominal wages are “sticky” because:
    A) wages are slow to rise in the short run when there are labour shortages and slow to fall even when there is significant level of unemployment.
    B) wages remain fixed in the long run thereby increasing the profitability of the firms.
    C) wages are slow to fall in the short run when there are labour shortages and slow to rise even when there is significant level of unemployment.
    D) in the long run all wages become adjusted for inflation.

12. Which of the following would likely cause the short-run aggregate supply curve to shift to the left?
    A) a decrease in consumer spending
    B) a decrease in the price of imported oil
    C) an increase in the price of imported oil
    D) an increase in consumer spending
Use the following to answer questions 13-15:

**Figure: AD–AS Model II**

13. If the price level rises, which of the following will occur?
   A) The SRAS curve will shift to the left.
   B) The SRAS curve will shift to the right.
   C) The AD curve will shift to the left.
   D) None of the above.

14. If commodity prices rise, which of the following will occur?
   A) The SRAS curve will shift to the left.
   B) The SRAS curve will shift to the right.
   C) The AD curve will shift to the left.
   D) The AD curve will shift to the right.

15. If the Bank of Canada bank reduces the quantity of money circulating in the economy, which of the following will occur?
   A) The LRAS curve will shift to the right.
   B) The LRAS curve will shift to the left.
   C) The AD curve will shift to the left.
   D) The AD curve will shift to the right.
Part B. Answer all questions. MUST show all work clearly and neatly. Only work done in the space provided will be marked. (32 marks)

Consider the following information describing a closed economy with no government. Price level is constant.

\[ C = 100 + 0.6Y_p \]
\[ I_{planned} = 200 \]

(a). Calculate the level of autonomous consumption. (2 marks)

100

(b). How much is total autonomous expenditure? (2 marks)

200

(c). Find the aggregate expenditure function for this economy. (2 marks)

\[ AE = 200 + 0.6Y \]

(d). Calculate the marginal propensity to consume in this economy? (2 marks)

0.6
(e). Calculate the equilibrium income. (2 marks)

\[ Y = 300 + 0.6Y \]

\[ Y^* = 300 \left( \frac{1}{1-0.6} \right) = 750 \]

(f). Assume $I_{planned}$ increases by $20. Calculate the new equilibrium income. (4 marks)

\[ AE' = 320 + 0.6Y \]

\[ Y' = 320 + 0.6Y' \]

\[ Y' = 320 \left( \frac{1}{1-0.6} \right) = 800 \]

(g). Calculate the $\Delta Y$ from the increase in $I_{planned}$. Separate the $\Delta Y$ into the change in the autonomous part and induced part. Calculate them. (6 marks)

\[ \Delta Y = 50 \]

\[ = \Delta I_{planned} + \Delta C \]

\[ = 20 + 30 \]
(h). Show your answers for (e), (f) and (g) in a detailed Keynesian Cross diagram. (6 marks)

(i). Multiplier process with *I_planned* increases by $20$ initially. Fill in the table: (6 marks)

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<th>Round</th>
<th>ΔC</th>
<th>Δ*I_planned</th>
<th>ΔY</th>
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