Name:
Student Number:
Total: 25 Points

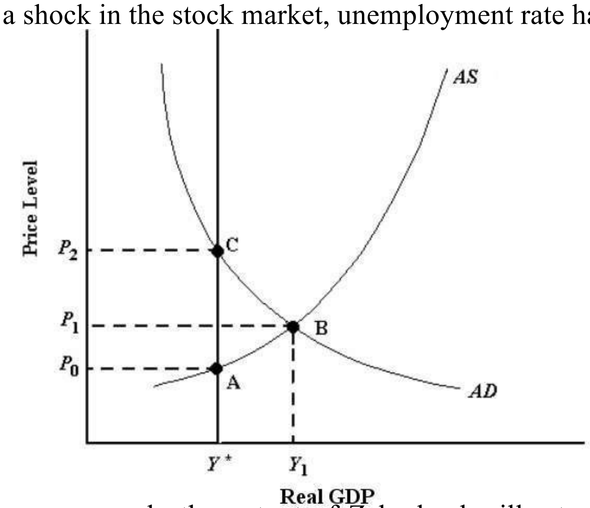
University of British Columbia
Econ 102
Mock Midterm 2
Instructor: Alfred Kong

This exam has 15 multiple choice questions in Part A and 5 short questions in Part B. Complete all the questions. Good luck.

Part A.

Multiple choice questions. Each question is worth 1 point.

1) There is a shortage of straw, an important raw material in Zebraland. This creates…
    a. a demand shock shifting the AD curve to the left
    b. a supply shock shifting the AS curve to the left
    c. a demand shocking shifting the AD curve to the right
    d. a supply shock shifting the AS to the right
    e. there is no effect on AD and AS curve, but Y* is shifted to the left
2) Referring to the diagram below, assuming that the output of Zebraland at this point of time has shifted from point A to point B. What could have caused this output gap?
    a. It has become popular for Zebras to eat grass instead of leaves, drastically decreasing the demand for the later.
    b. The newly revised tax policy has encouraged firms to expand, leading to a overall increase in the demand of labour.
    c. Rumours have it that the price of grass, a common household item, will be increasing in the near future.
    d. Lionland, a largely vegetarian society and a major trade partner with Zebraland, has been encouraging the consumption of meat, resulting in a drop of Zebraland's net export.
    e. Due to a shock in the stock market, unemployment rate has hit record high.



3) Referring to the same graph, the output of Zebraland will return to Y* in the long run. This will likely be caused by…
    a. Wages and factor prices increase as productions expand.
    b. The increase in the demand for grass drives its price down.
    c. Diplomatic issues with Lionland greatly decrease public confidence.
    d. The expansion of the leaf industry causes a shift of labour from the grass industry.
    e. There is a shortage of grass, which stagnates the economy.

4) Johnny just immigrated to Zebraland, bringing with him 30 thousand Zebrallars in cash (the nation's currency), which he later deposits into Zebank (a large commercial bank). If Johnny's cash deposit has eventually led to a 120 thousand Zebrallars increase in the nation's commercial banking system, what is Zebraland's reserve ratio (assuming no cash drain)?
   a. 0.4
   b. 0.5
   c. 0.12
   d. 4
   e. 0.25
5) Continuing from question 4, if Zebras like to keep in their bushes cash that equals to 12% of their bank deposits, what, then, is the nation's reserve ration?
   a. 0.37
   b. 0
   c. 0.13
   d. 0.38
   e. 0.63
6) President Obrama of Zebraland announces a bond that costs 1000 Zebrallars, pays 400 Zebrallars annually and returns the principle at the end of the third year (note that you get the coupon in the third year as well). He says that the bond's present value is worth almost twice its cost, at a 4% market interest rate. Does President Obrama know how to calculate present values?
   a. Yes
   b. No
   c. Maybe he does, but I don't.
7) Referring back to question 5, the Bank of United Zebras (Zebraland's central bank) increases the overnight rate. If Johnny is to deposit the same amount of new cash the very next day, how would the total change in deposit of the banking system be different?
   a. The total change would increase because a higher interest rate means a lower money demand.
   b. The resulted total change would be more than his first deposit, since an increased interest rate means increased present values.
   c. The total change would decrease as commercial banks deposits more cash with the central bank.
   d. Other things being equal, it won't be different, as interest rate does not directly affect reserve ratio or cash drain.
   e. The total change would actually decrease, because an increase in the amount of cash will result in inflation.
8) After President Obrama's announcement in question 6, everybody started to purchase that bond. How does this affect Zebraland's GDP in the short run, assuming that the GDP was at Y* before the announcement?
   a. The GDP does not change, since the purchase of bond does not effect production, ceteris paribus.
   b. The there will be an inflationary gap, resulted from a drop in interest rate.

c. The GDP would in fact decrease, since people will not have less money to spend.
d. Essentially, the purchase of bond is a form of investment, which means the sum of consumption and investment in the GDP equation does not change. Hence, the GDP does not change.
e. There will probably be effects on the GDP. However, the result cannot be immediately observed due to time lag.

9) Referring back to question 6 and 8, how would President Obrama's announcement affect the GDP of Lionland, a major trade partner with Zebraland, ceteris paribus?
    a. The citizen's of Lionland will be attracted to purchase the bonds, leading to a capital outflow.
    b. President Happilion of Lionland will issue a similar bond, but this will have no effect on its economy.
    c. Capital investors will see Lionland as a better place for investment due to its larger money supply, thus boosting Lionland's economy.
    d. The purchase of bond in one country does not affect the economy of another.
    e. The GDP of Lionland will decrease due to a decrease in its net export.
10) Referring back to question 4, how much money will be deposited in the 7^{th}-round bank?
    a. 5.34 thousand Zebrallars
    b. 4.00 thousand Zebrallars
    c. 1.40 thousand Zebrallars
    d. 7.32 Zebrallars
    e. 1.83 Zebrallars
11) The Bank of United Zebras decides to increase its purchases of government securities. How will this affect the economy of Zebraland in the short and long run, ceteris paribus?
    a. The purchase of government securities sends out a signal of strengthening the nation's defence budget, which leads to a decrease in net export as diplomatic relations worsen.
    b. Zebras will increase their savings, reducing the country's real GDP in the short run but helping its growth in the long run.
    c. The resulting increase in money supply drives down the interest rate. Consequentially, an increase in GDP is resulted from a right shift of the AD curve. However, the economy soon returns to Y* as wages and factor prices drive up costs of production.
    d. Through the purchase of government securities, the central bank aids commercial banks financially, thus increasing investments and shifting Y* to the right.
    e. The purchase of government securities takes away some monetary power from the private sector, thus decreasing investments and consumption in general. In the long run, however, the economy shifts back as wages and factor prices adjust to the new price level.
12) Zebraland's official currency, Zebrallar, is fiat money. It has value because…
    i. it is fractionally back by gold and/or other precious metals.

ii. it is a generally accepted form of payment.
iii. the government said so.

a. i only
b. iii only
c. i, ii and iii
d. i and ii only
e. ii and iii only

13) The economy of Lionland has been booming recently. How could this affect the policies of the Bank of United Zebras?
  a. The boom in Lionland means Zebras will be more attracted to purchasing foreign products. The Bank should decrease interest rate to encourage domestic expenditures.
  b. The boom in Lionland means it now has more options in terms of foreign trade. The Bank should increase money supply in an attempt to depreciate Zebrallar's value, thus maintaining a cost advantage in the foreign trade market.
  c. The boom in Lionland means an increased demand for Zebraland products. As a result, Zebrallars appreciates. The Bank should increase overnight rate to offset the positive demand shock.
  d. Although the two countries are close trade partners, the boom of one has no effect on the other's currency and monetary system.
  e. Ceteris paribus, due to the close trade relationship of the two countries, there will likely be a boom in Zebraland's economy as well. The Bank should aid the economic growth by increasing money supply.

14) Zebraland is targeting an annual growth rate of about 7%, well, Lionland is content with a 3% growth. Assuming the two countries currently possess equal level GDP, which of the following statement is <u>not</u> true?
  a. Zebraland sacrifices more current consumption than Lionland
  b. In a balanced growth path, Zebraland will enjoy a much higher living standard than Lionland a few years down the road.
  c. Zebraland has a higher percentage of GDP as national investment
  d. The Zebras will become a stronger economic power than the Lions, assuming the growth rate is maintained.
  e. Zebraland will tend to have more national saving than Lionland

15) The Bank of United Zebras has adopted an expansionary monetary policy. This means…
  a. it has increased its target range of inflation rate
  b. it has increased the money supply
  c. that the Bank is hiring
  d. it has increased overnight rate
  e. it has decreased overnight rate

Part B.

Short questions.

Question 1

Please explain how central banks set overnight rate to influence the market interest rate. You do not explain how changes in overnight rates result in changes in market interest rates, but doing so successfully will result in a bonus mark. (2)

Question 2

Please explain why the market interest rate and bond prices are inversely proportional. (2)

Question 3

Please explain the effects of an increase or decrease in money supply. For brevity, you may choose to only explain increase or decrease. (2)

Question 4

Please explain the money creation process by the commercial banking system. (2)

Question 5

Johnny has purchased a bond at the price of $1530. The coupon pays $130 biannually for 10 years, at the end of which the principle is repaid. Notice that coupon is also paid in the 10^{th} year. Please calculate the Present Value of this bond at a market interest rate of 4%. Partial mark can be earned by providing the correct formula. (2)

End of mock midterm!

Are you hot to go?