MACROECONOMIC THEORY I
ECO2142 B
Fall 2016

HOMEWORK ASSIGNMENT 4 - ANSWERS

Multiple choice questions (4 points each)

1. Which of the following statements is true?

a. In the sticky price theory, the desired price set by a firm with flexible prices is always lower than the desired price set by a firm with sticky prices.
b. In the sticky price theory, the desired price set by a firm with flexible prices is lower than the desired price set by a firm with sticky prices if the current output level is higher than the natural level.
c. In the sticky price theory, the aggregate price level will be equal to the expected price level if and only if the fraction of firms with sticky prices is equal to one (i.e. $s = 1$).
d. In the imperfect information model, firms will increase production when the observed prices increase more than expected prices.
e. In the imperfect information model, firms will decide their production levels independently of the observed aggregate and expected prices.

2. Consider the $AD - AS$ model of the economy where the $SRAS$ is: $Y = \overline{Y} + \alpha[P - E(P)]$, with $\alpha > 0$. Assume that the economy is currently operating at the short run equilibrium point $Y < \overline{Y}$. Which of the following statements is true?

a. **The current aggregate price level P is lower than the expected price level $E(P)$, and both P and $E(P)$ will be decreasing in the adjustment to the long run equilibrium.**
b. The current aggregate price level P is lower than the expected price level $E(P)$, and both P and $E(P)$ will be increasing in the adjustment to the long run equilibrium.
c. The current aggregate price level P is equal to the expected price level $E(P)$, and both P and $E(P)$ will remain unchanged in the adjustment to the long run equilibrium.
d. The current aggregate price level P is higher than the expected price level $E(P)$, and both P and $E(P)$ will be increasing in the adjustment to the long run equilibrium.
e. The current aggregate price level P is higher than the expected price level $E(P)$, and both P and $E(P)$ will remain unchanged in the adjustment to the long run equilibrium.

3. In the Phillips curve model, assume that $\beta = 0.5$, expected inflation is 4%, and that the supply shock is equal to zero. According to this model, if the central bank decides to decrease the inflation rate from 5% to 2% and expected inflation does not change, cyclical unemployment will

a. remain unchanged.
b. decrease from 2% to 1%.
c. decrease from 1% to -4%.
d. increase from 2% to 5%.
e. **increase from -2% to 4%.**

4. Which of the following statements is NOT true? According to the Phillips curve model:

a. supply shocks will cause "cost-push" inflation.
b. if the value of β is very small, even small departures of π from $E(\pi)$ will have a large impact on cyclical unemployment.
c. for any given value of the expected inflation rate $E(\pi)$, cyclical unemployment is negatively related to the inflation rate.
d. cyclical unemployment is not affected by changes in expected inflation $E(\pi)$.
e. if agents have rational expectations, the central bank will not be able to affect cyclical unemployment by changing the inflation rate π, no matter what the value of β is.

5. Consider the *SRAS* equation: $Y = \overline{Y} + \alpha[P - E(P)]$, with $\alpha > 0$, together with Okun's law: $-\beta(u - u^n) = \frac{1}{\alpha}\left(Y - \overline{Y}\right)$. Assume for simplicity that $\beta = 1$. Which of the following statements is true?

a. if output is equal to the full employment level, then cyclical unemployment will be negative.
b. if output is larger than the full employment level, then cyclical unemployment will be negative.
c. if output is larger than the full employment level, then the unemployment rate will be equal to the natural rate.
d. if output is larger than the full employment level, then cyclical unemployment will be positive.
e. if output is larger than the full employment level, then the natural rate of unemployment will be negative.