Final Exam (version B)

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Section 1 is made of 10 multiple choice questions, Section 2 of one short answer problem related to short run open economy, Section 3 of one short answer problem related to consumption, Section 4 of one problem related to investment and finally Section 5 of one short answer problem related to money supply and demand. You have 110 minutes to complete the test. Points add up to 120. Good Luck.

1 [40 Points] Multiple choice:

1.1 If two economies are identical (including having the same saving rates, population growth rates, and efficiency of labor), but one economy has a lower saving rate, then the steady-state level of income per woeker in the economy with the lower saving rate:

A) will be at a lower level than the steady state of the high saving economy.
B) will be at a higher level than the steady state of the high saving economy.
C) will be at the same level as the steady state of the high saving economy.
D) will be proportional to the ratio of the capital stocks in the two economies.

1.2 In the two-sector endogenous growth model, the saving rate (s) affects the steady state:

A) level of income.
B) growth rate of income.
C) level of income and growth of income.
D) growth rate of the stock of knowledge.

1.3 Assume that a country experiences a reduction in productivity that shifts the labor demand curve downward and to the left. If the real wage were rigid, this would lead to:

A) no change in the real wage and a rise in unemployment.
B) no change in the real wage and no change in unemployment.
C) no change in the real wage and a fall in umemployment.
D) a decrease in the real wage.

1.4 If the price level depends on both the current money supply and future expected money supply, in order to stop an hyperinflation, a central bank may try to establish credibility by:

A) achieving increased political independence from the government.
B) increasing revenue from seignorage.
C) encouraging increased government spending and tax cuts.
D) undertaking larger open-market purchases.

1.5 In a long run model, in a large open economy, if political instability abroad lowers the net capital outflow function, then the real interest rate:

A) rises, while the real exchange rate rises and net exports fall.
B) rises, while the real exchange rate falls and net exports rise.
C) falls, while the real exchange rate rises and net exports rise.
D) falls, while the real exchange rate rises and net exports fall.

1.6 In a short-run model of a large open economy with a floating exchange rate, a monetary expansion causes a decrease in the interest rate and:

A) the exchange rate, but has no effect on income.
B) the exchange rate, and increases in income, net capital outflow, and net exports.
C) the exchange rate and net capital outflows, and increases in income and net exports.
D) net exports and net capital outflows, but increases in investment and income.

1.7 In the sticky-price model, if no firms have flexible prices, the short-run aggregate supply schedule will:

A) be vertical.
B) be steeper than it would be if some firms had flexible prices.
C) slope upward to the right.
D) be horizontal.

1.8 The Philips curve describing the economy takes the form $u = u^n - \alpha(\pi - \pi^e)$. The central bank directly sets the inflation rate to minimize the following loss function, $L(u, \pi) = u - \gamma\pi^2$. The symbol u denotes the unemployment rates, u^n is the natural rate of unemployment, π is the inflation rate, π^e is the expected inflation rate, and α and γ are behavioral response parameters of the economy. Private agents form their expectations rationally before the central bank sets the inflation rate. In an economy in which the central bank dislikes inflation much more than unemployment:

A) α will be very large.
B) α will be very small.
C) γ will be very large.
D) γ will be very small.

1.9 Assume that nobody cares about the economic well-being of future generations. Then the Ricardian equivalence view of the effect of debt-financed tax cuts is:

A) totally invalid.
B) still fully valid because the government has the option to levy taxes to pay off the full debt in just a few years.
C) still fully valid as long as the government cuts spending also.
D) still partially valid because most of the taxpayers will live and pay taxes for a substantial number of years after the tax cut.

1.10 All of the following ideas are associated with the new Keynesian theories except:

A) wages and prices are sticky.
B) monetary and fiscal policy should attempt to stabilize the economy.
C) there are market imperfections that reduce the well-being of society.
D) the business cycle is a natural and efficient response of the economy to changing technological possibilities.

2 [20 Points] Problem:

The government of a small open economy with perfect capital mobility wants to establish a "stronger" currency by moving its exchange rate higher. Suggest both an appropriate monetary policy adjustment and an appropriate fiscal policy adjustment that would allow the economy to move to a higher exchange rate. What are the consequences of these adjustments on domestic output and net exports?

3 [20 Points] Problem:

Use the IS-LM model to illustrate graphically the impact on output and interest rates of a one-time increase in the price level due to a large increase in oil prices. Be sure to label: (i) the axes; (ii) the curves; (iii) the initial equilibrium values; (iv) the direction of the curves shift; and (v) the terminal equilibrium values.

4 [20 Points] Problem:

The "impossible trinity" refers to the idea that a country can simultaneously persue only two of the three following policies: free international-capital flows, monetary policy for domestic stabilization, and a fixed exchange rate. For each of the following combinations indicate what the economy gives up by selecting the combination and why the omitted policy cannot be achieved:

A) a fixed exchange rate and free international-capital flows
B) a monetary policy for domestic stabilization and a fixed exchange rate
C) a monetary policy for domestic stabilization and free international-capital flows

5 [20 Points] Problem:

Two countries, Highland and Lowland, are described by the Solow growth model. Both countries are identical, except that the rate of labor-augmenting technological progress is higher in Highland than in Lowland.

A) In which country is the steady-state growth rate of output per effective worker higher?
B) In which country is the steady-state growth rate of total output higher?
C) Does the Solow growth model predict that the two economies will converge to the same steady state?