1) The US economy is operating at less than full employment.
(a) Create a correctly labeled graph of aggregate demand and aggregate supply, and show each of the following.
(i) Long-run aggregate supply curve
(ii) Current output and price level

(b) If the government takes no action, identify and explain what will happen to each of the following:
(i) Short-run aggregate supply
(ii) Employment
(iii) Price level

(c) Ignore part b,
(i) Name two actions, one fiscal policy and one monetary policy, that the government might consider to address an economy below full employment.
(ii) For each action, explain how that action might affect the aggregate supply in the long run?

2) A customer takes $12,000 which they had been holding in a vault at home and deposits it in Bank A.
(a) What is the initial change in the money supply caused by this transaction? Explain

(b) Assume that the reserve requirement is 12 percent and that Bank A voluntarily holds an additional 8 percent in reserves. Calculate each of the following:
i) The amount by which Bank A will increase its loans as a result of the transaction in part (a)
ii) The maximum increase in the nation's money supply that will he generated from the transaction in part (a)

(c) Assume that the government increases spending by $9,000 which is financed by a sale of bonds to the central bank.
i) Indicate what will happen to the money supply.
ii) Explain what will happen to money demand.

(d) Assume the central bank sells $15,000 of bonds to private citizens.
i) Indicate what will happen to the money supply.
ii) Identify how much new money is created by the banking system.

3) Suppose the US economy is at long run equilibrium along an upward-sloping short-run aggregate supply curve. Suppose that the Federal Reserve conducts an open-market sale of government bonds.
(a) Using a correctly labeled graph of the money market show how the open-market sale of bonds will affect each of the following.
(i) Money supply
(ii) Interest rate
(iii) Indicate whether the interest rate you identified in a (ii) is a real or a nominal rate.

(b) Under what condition will the nominal interest rate differ from the real interest rate?

(c) Using a correctly labeled graph of aggregate demand and aggregate supply, show the short-run effect of the open-market operation on each of the following.
(i) Real output
(ii) Price level

(d) On a correctly labeled graph of the Phillips curve, show how the open-market operation will affect the following in the short run. Use an arrow to show the direction of change.
(i) Unemployment rate
(ii) Inflation rate

(e) Identify a fiscal policy action that would offset the impact on real output and price level that you identified in (c).