AP® MACROECONOMICS 2012 SCORING GUIDELINES

Question 2

5 points (1 + 3 + 1)

- (a) 1 point:
 - One point is earned for calculating the correct reserve requirement of 10 percent (\$10,000/\$100,000).
- (b) 3 points:
 - One point is earned for stating that total bank reserves will decrease by \$5,000.
 - One point is earned for stating that the \$5,000 withdrawal has no effect on the M1 measure of the money supply because it only changes the composition of M1 between cash and demand deposits.
 - One point is earned for stating that the new value of the excess reserves is \$500.
- (c) 1 point:
 - One point is earned for stating that the bank can borrow from the Federal Reserve or from another bank.

2. The following is a simplified balance sheet for Mi Tierra Bank in the United States.

Mi Tierra Bank

Assets		Liabilities				
Required reserves	\$10,000	Demand deposits	\$100,000			
Excess reserves	\$5,000					
Loans	\$85,000	Owner's equity	\$ 0			

- (a) What is the reserve requirement?
- (b) Assume that Luis withdraws \$5,000 in cash from his checking account at Mi Tierra Bank.
 - (i) By how much will Mi Tierra Bank's reserves change based on Luis' withdrawal?
 - (ii) What is the initial effect of the withdrawal on the M1 measure of money supply? Explain.
 - (iii) As a result of the withdrawal, what is the new value of excess reserves on the balance sheet of Mi Tierra Bank based on the reserve requirement from part (a)?
- (c) Assume that the next day John withdraws from Mi Tierra Bank an amount that exceeds the bank's excess reserves. Assuming that no loans are called in, how can Mi Tierra Bank cover its required reserves?

1) required reserves/liabilities 10,000/100,000 = 1
reserve requirement is 10%
B) Their reserves will lower by \$5,000
deposits both make up Ml. The money is staying within the MI measure of money supply.
also declined to \$95,000. So now they only require \$9,500 reserves
Mi Terra can cover its required reserves by discounting or borrowing money from the federal Reserve. The federal always lets banks borrar from them in case they John have enough to cover their required reserves.

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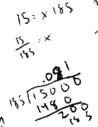
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Loans	\$85,000	Owner's equity	\$0		

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 - (i) By how much will Mi Tierra Bank's reserves change based on Luis' withdrawal?
 - (ii) What is the initial effect of the withdrawal on the M1 measure of money supply? Explain.
 - (iii) As a result of the withdrawal, what is the new value of excess reserves on the balance sheet of Mi Tierra Bank based on the reserve requirement from part (a)?
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b)	10900		i) They will change by \$5,000
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AP® MACROECONOMICS 2012 SCORING COMMENTARY

Question 2

Overview

Part (a) asked students to use the balance sheet of a bank to find the reserve requirement. Part (b) tested their ability to identify the effect of a cash withdrawal on bank reserves, explain the effect of the cash withdrawal on the money supply, and identify the effect of the cash withdrawal on excess reserves. Part (c) asked students to identify how a bank with deficient reserves could meet its reserve requirements.

Sample: 2A Score: 5

The student answers all parts of the question correctly and so earned all 5 points.

Sample: 2B Score: 3

The student received 1 point in part (a) for correctly calculating the reserve requirement as 10 percent, 1 point in part (b) for stating that the "reserves ... will decrease by \$5,000," and 1 point in part (c) for stating that the bank can borrow from another bank.

Sample: 2C Score: 1

In part (b) the student earned 1 point for correctly stating that the reserves will decrease by \$5,000.