1. Consider the following balance sheet for the banking system. Assume no unwanted excess reserves, no vault cash or coins and the currency ratio is 20%.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>L+NW</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReqRes</td>
<td>100</td>
<td>CD</td>
</tr>
<tr>
<td>ExcRes*</td>
<td>100</td>
<td>1000</td>
</tr>
<tr>
<td>Loans</td>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>

Determine: the money multiplier ________________

the monetary base ________________

the money supply ________________

2. Suppose that initially the reserve requirement ratio was 10%, the desired excess reserve ratio was 10%, the currency deposit ratio was 20%, and the monetary base was $1000. Now suppose that the public increases the currency ratio to 25%. How can the FED use open market operations to offset the effects of this on the money supply?
3. Use t-accounts to show the effects on the Monetary Base of (i) the FED buying $100 of securities from the public (Use t-accounts for FED, Banks, and the public), and (ii) the Bank A borrows $100 from the FED at the discount window (Use t-accounts for FED and Bank A).

4. Suppose the Fed "ties" the discount rate to the FED FUNDS rate, so that the discount rate rises and falls automatically with the FED FUNDS RATE (For example, if the FED FUNDS rate increases (decreases) 1%, the discount rate will also increase (decrease) 1%). How will this change alter Reserve demand and supply and the equilibrium FED FUNDS rate?
II. Multiple Choice (3 pts each) Choose the best answer. Code (correctly!!!) your BannerID# or your Miami Unique ID on the scanner sheet.

For Questions #1 – 5 use the following balance sheets. Assume no unwanted excess reserves, no coins and no vault cash. Start with these balance sheets for each question.

<table>
<thead>
<tr>
<th>The Banking System</th>
<th>The Fed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReqRes</td>
<td>200</td>
</tr>
<tr>
<td>ExcRes*</td>
<td>100</td>
</tr>
<tr>
<td>Loans</td>
<td>700</td>
</tr>
<tr>
<td>CD</td>
<td>1000</td>
</tr>
</tbody>
</table>

1. Based upon the above, the money multiplier is:
   a. 2  b. 2.5  c. 3  d. 2.4  e. none of these

2. Based on the above, if the Fed buys $50 of securities from the public, when the banking system returns to equilibrium we would expect to see:
   a. the money supply increase by $120.
   b. bank loans increase by $75.
   c. bank deposits at the Fed increase by $50.
   d. both a and c are correct.
   e. none of the above are correct.

3. Based upon the above,
   a. the money supply is $1200 and the currency ratio is 20%.
   b. the monetary base is $400.
   c. the desired excess reserve ratio (e) is 20%.
   d. both a and b are correct.
   e. none of the above are correct.

4. Based upon the above, if the Fed abolished required reserves, so that rD=0, then as a result of this we would expect to see (when the banking system returns to an equilibrium):
   a. checkable deposits will increase by $400.
   b. the money supply increase by $800
   c. bank deposits at the Fed fall by $133.
   d. both b and c are correct.
   e. none of the above are correct.

5. Based upon the above, if the Fed buys $100 of securities from the public, then when the banking system returns to equilibrium,
   a. Currency holding will increase by $40.
   b. Checking Deposits will increase by $240.
   c. ReqRes will increase by $25.
   d. both a and c are correct.
   e. a, b, and c are correct.

6. A decrease in the currency/deposit ratio (c) will (when banks return to equilibrium)
   a. increase the money multiplier.
   b. increase the monetary base.
   c. decrease the money supply.
   d. both a and b are correct.
   e. none of the above are correct.
7. An increase in the excess reserve ratio (e) will (when banks return to equilibrium):
   a. reduce currency holding by the public.
   b. increase checkable deposits
   c. increase the monetary base.
   d. both b and c are correct.
   e. none of the above are correct.

8. A reduction in the reserve requirement ratio (r_{CD}) will (when banks return to equilibrium):
   a. increase the money multiplier.
   b. increase the monetary base.
   c. increase bank reserves.
   d. both a and b are correct.
   e. none of the above are correct.

9. Which of the following will increase the non-borrowed monetary base?
   a. An open market sale of securities to be public by the FED.
   b. a lower discount rate,
   c. a lower reserve requirement ratio.
   d. both b and c are correct.
   e. none of the above are correct.

10. An open market purchase of securities by the Fed from the public will:
    a. increase the monetary base.
    b. increase the supply of money
    c. increase the money multiplier.
    d. a and b are correct.
    e. none of the above are correct.

11. Suppose the reserve requirement ratio is 10%, the excess reserve ratio is 10%, the currency/deposit ratio is .2. To increase the money supply by $100, the FED could:
    a. buy $100 of securities from the public.
    b. buy $33.33 of securities from the public.
    c. buy $50 of securities from the public.
    d. buy $10 of securities from the public.
    e. none of the above are correct.

12. As Bank A borrows FED FUNDS from Bank B:
    a. the non-borrowed monetary base will increase.
    b. the money multiplier will increase.
    c. the money supply will increase.
    d. the discount rate will increase.
    e. none of the above are correct.

13. Suppose that at Bank A, CD= 1000, r_{CD}=10%, e=5%, and the currency ratio is 1.1 (or 110%). If the bank has $300 of reserves, then:
    a. currency in the economy is $400.
    b. the bank has $150 of unwanted excess reserves.
    c. the banks required reserves are $150.
    d. the bank will have discount loans for $200.
    e. none of the above are correct.
14. An increase in the discount rate will
   a. increase discount loans and the monetary base.
   b. reduce the non-borrowed monetary base.
   c. reduce the money multiplier.
   d. both b and c are correct.
   e. none of the above are correct.

15. Which of the following will increase the FED FUNDS rate?
   a. An increase in the reserve requirement ratio.
   b. An open market sale of securities by the FED.
   c. A reduction in loan demand at banks.
   d. both a and b are correct.
   e. none of the above are correct.

16. Which of the following is a FED intermediate target:
   a. The discount rate.
   b. the FED FUNDS rate.
   c. Long term interest rates.
   d. low inflation.
   e. none of the above are correct.

17. IF the FED targets the FED FUNDS rate, then if loan demand at banks increases, the FED must:
   a. buy securities from the public,
   b. increase the discount rate.
   c. sell securities to public.
   d. both b and c are correct.
   e. none of the above are correct.

18. IF the FED targets Non-Borrowed Reserves, then if loan demand at banks increase, the FED must:
   a. buy securities from public,
   b. increase the discount rate.
   c. sell securities to public.
   d. both b and c are correct.
   e. none of the above are correct.

19. Based upon current monetary data, the monetary base and money multiplier are about:
   a. $500b and 2.4
   b. $675b and 1.75
   c. $777b and 2.51
   d. $400b and 3
   e. none of the above are correct.

20. Based upon current economic data, the predicted target FED FUNDS rate from the Taylor Rule is:
   a. 1.75%
   b. 2.5%
   c. 0.75%
   d. 2.0%
   e. none of the above are correct.