Question 1

There are three types of money: commodity money, commodity-backed money, and fiat money. Which type of money is used in each of the following situations?

a . Bottles of rum were used to pay for goods in colonial Australia.

b. Salt was used in many European countries as a medium of exchange.

c . For a brief time, Germany used paper money (the "Rye Mark") that could be redeemed for a certain amount of rye, a type of grain.

d. The town of Ithaca, New York, prints its own currency, the Ithaca HOURS, which can be used to purchase local goods and services.

Question 2

Tracy Williams deposits $500 that was in her sock drawer into a checking account at the local bank. The reserve ratio is 10%.

a. How does the deposit initially change the assets and liabilities of the local bank? How does it change the money supply?

b. If the bank maintains a reserve ratio of 10%, how will it respond to the new deposit?

c. If every time the bank makes a loan, the loan results in a new checkable bank deposit in a different bank equal to the amount of the loan, by how much could the total money supply in the economy expand in response to Tracy's initial cash deposit of $500?

d. If every time the bank makes a loan, the loan results in a new checkable bank deposit in a different bank equal to the amount of the loan and the bank maintains a reserve ratio of 5%, by how much could the money supply expand in response to Tracy's initial cash deposit of $500?

Question 3

Ryan Cozzens withdraws $400 from his checking account at the local bank and keeps it in his wallet.

a. How will the withdrawal change the T-account of the local bank and the money supply?

b. If the bank maintains a reserve ratio of 10%, how will it respond to the withdrawal? Assume that the bank responds to insufficient reserves by reducing the amount of deposits it holds until its level of reserves satisfies its required reserve ratio. The bank reduces its deposits by calling in some of its loans, forcing borrowers to pay back these loans by taking cash from their checking deposits (at the same bank) to make repayment.

c. If every time the bank decreases its loans, checkable bank deposits fall by the amount of the loan, by how much will the money supply in the economy contract in response to Ryan's withdrawal of $400?

d. If every time the bank decreases its loans, checkable bank deposits fall by the amount of the loan and the bank maintains a reserve ratio of 20%, by how much will the money supply contract in response to a withdrawal of $400?

Question 4

An economy has a monetary base of 1,000 $1 bills. Calculate the money supply in scenarios (a)–(d) and then answer part (e).

a. All money is held as currency.

b. All money is held as demand deposits. Banks hold 100% of deposits as reserves.

c. All money is held as demand deposits. Banks hold 20% of reserves as deposits.

d. People hold equal amounts od demand deposits and currency. Banks hold 20% of deposits as reserves.

e. The central bank decides to increase the money supply by 10%. In each of the above four scenarios, how much should it increase the monetary base?

Question 5

In the nation of Wiknam, people hold $1,000 of currency and $4,000 of demand deposits in the only bank, Wikbank. The reserve-deposit ratio is 0.25.

a. What are the money supply, the monetary base, and the money multiplier?

b. Assume that Wikbank is a simple bank: it takes in deposits, makes loans, and has no capital. Show Wikbank's balance sheet. What value of loans does the bank have outstanding?

c. Wiknam's central bank wants to increase the money supply by 10%. Should it buy or sell government bonds in open-market operations? Assuming no change in the money multiplier, calculate, in dollars, how much central bank needs to transact.