ECO 301: Money and Banking **Name:** ______________________________

Practice Exam 3, Fall 2022

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Multiple choice: Choose the best response to each prompt.

1. What can cause a bond price to be lower?

   (a) Higher face values

   (b) Higher demand for the bond

   (c) Lower interest rates

   (d) Higher default risk

2. The returns on what type of bonds are typically subject to federal taxes, but not state, or local taxes?

   (a) Municipal bonds

   (b) Bonds issued by local governments

   (c) Corporate bonds

   (d) Federal government bonds

3. What is the term structure of interest rates?

   (a) The difference in maturity dates for bonds with different levels of risk.

   (b) The behavior of interest rates for bonds that have different maturity dates, but are otherwise similar.

   (c) The terms of bond contracts regarding interest rates.

   (d) The differences in interest rates for bonds with the same maturity but different on other characteristics.

4. If interest rates are expected to increase over time, what does the expectations theory predict about the shape of the yield curve?

   (a) The yield curve will be upward sloping.

   (b) The yield curve will be flat.

   (c) The yield curve will be U-shaped.

   (d) The yield curve will be downward sloping.

5. Suppose the Fed conducts an open market sale of long-term federal government bonds, and makes no changes to its portfolio of other types of bonds. What is the impact on the yield curve?

   (a) The yield curve will become upward sloping or become steeper.

   (b) The yield curve will get longer.

   (c) The yield curve will get flatter or become downward sloping.

   (d) The yield curve will be U-shaped

6. If a bond rating agency lowered its rating on a bond, what is the likely impact on the bond market?

   (a) There will be an increase in demand for the bond and a decrease in the interest rate for the bond.

   (b) There will be an increase in demand for the bond and an increase in the interest rate for the bond.

   (c) There will be a decrease in demand for the bond and a decrease in the interest rate for the bond.

   (d) There will be a decrease in demand for the bond and an increase in the interest rate for the bond.

7. Suppose the tax rate is increased for the return earned on federal government bonds, but not changed for corporate bonds. What would be the impact on the bond market?

   (a) The demand for federal government bonds would increase, leading to a decrease in the price of government bonds, and therefore an increase in the interest rate.

   (b) The demand for federal government bonds would increase, leading to an increase in the price of government bonds, and therefore a decrease in the interest rate.

   (c) The demand for federal government bonds would decrease, leading to an increase in the price of government bonds, and therefore a decrease in the interest rate on government bonds.

   (d) The demand for federal government bonds would decrease, leading to a decrease in the price of government bonds, and therefore an increase in the interest rate on government bonds.

8. What are the explicit costs necessary to simply engage in a financial transaction?

   (a) Information costs

   (b) Interest payments

   (c) Transaction costs

   (d) Scale costs

9. What are the costs financial investors may need to incur to determine the credit worthiness of borrowers or profitability of potential financial investments?

   (a) Interest costs

   (b) Information costs

   (c) Default costs

   (d) Adverse selection costs

10. What is asymmetric information?

   (a) The situation when information costs are different for different types of financial investors.

   (b) The situation when one side of a transaction has more infromation on the value of the transaction than the other side.

   (c) When transaction costs are positive for one party of a financial transaction and negative for another party.

   (d) The situation when transaction costs exceed information costs.

11. Which of the following is true regarding adverse selection?
    (a) Lenders with insufficient liquidity lend funds to borrowers.
    (b) There is asymmetric information regarding the credit worthiness of borrowers before a loan is made.
    (c) Lenders cannot prevent borrowers from making risky investments with the borrowed funds.
    (d) There is asymmetric information regarding the credit worthiness of borrowers after a loan is made.

12. Which of the following is true regarding adverse selection?
    (a) Higher market interest rates price high-risk borrowers out of the market and therefore there is a disproportionate number of low-risk borrowers in the market for loanable funds.
    (b) Higher market interest rates price low-risk borrowers out of the market and therefore there is a disproportionate number of high-risk borrowers in the market for loanable funds.
    (c) Lower market interest rates price low-risk borrowers out of the market and therefore there is a disproportionate number of high-risk borrowers in the market for loanable funds.
    (d) Lower market interest rates price high-risk borrowers out of the market and therefore there is a disproportionate number of low-risk borrowers in the market for loanable funds.

13. What is a strategy to reduce the adverse selection problem in financial markets?
    (a) Reducing lending to firms with low net-worth
    (b) Monitoring borrowers use of funds
    (c) Reducing lending to firms with high net worth
    (d) Lowering interest rates

14. What is the situation when borrowers have an incentive to engage in risky uses for borrowed funds and are able to hide this behavior from lenders?
    (a) All of the above describe this situation.
    (b) Moral hazard
    (c) High information costs
    (d) Adverse selection

15. Which of the following is a strategy to reduce moral hazard problems?
    (a) Credit rationing
    (b) Place clauses in bond contracts that limits the uses for the funds the borrower receives.
    (c) Increasing information costs for borrowers
    (d) Increasing financial regulation compliance and enforcement.

16. What is the situation when managers of a firm have different incentives than the shareholders of a firm?
    (a) Financial supervision problem
    (b) Principal agent problem
    (c) Adverse selection problem
    (d) Manager stakeholder problem

17. Reserve balances, loans, and securities held by a bank are all part of what component of bank's balance sheet?
    (a) Liabilities
    (b) Securities
    (c) Assets
    (d) Capital

18. Which of the following is a bank liability?
    (a) Checking deposits
    (b) All of these are liabilities for a bank.
    (c) Savings deposits
    (d) Discount loan from the Federal Reserve District bank

19. Which of the following is true regarding bank assets and liabilities?
    (a) Bank liabilities are more risky than bank assets.
    (b) Bank liabilities have higher interest rates than bank assets
    (c) Bank assets typically have longer maturities than bank liabilities
    (d) Bank liabilities typically have longer maturities than bank assets

20. If bank assets have fixed interest rates and bank liabilities have variable interest rates, what impact does an increase in interest rates have?
    (a) Decreases the present value of assets and makes no change to the present value of liabilities.
    (b) Decreases the present value of liabilities and makes no change to the present value of assets.
    (c) Increases the present value of assets and makes no change to the present value of liabilities.
    (d) Increases the present value of liabilities and makes no change to the present value of assets.

21. What is the difference between a bank's variable rate assets and its variable rate liabilities?

    (a) Risk premium

    (b) Gap analysis

    (c) Bank capital

    (d) Liquidity gap

22. What is true regarding the duration gap?

    (a) It is typically negative for banks.

    (b) It is typically positive for banks.

    (c) It is equal to or close to zero for financially healthy banks.

    (d) It is positive when bank capital is positive and negative when bank capital is negative.

23. What might cause a bank to become insolvent?

    (a) If the value of secuirities owned by the bank falls.

    (b) All of these can cause a bank to become insolvent.

    (c) If a bank made loans which declined in value due to defaults.

    (d) If a bank sells assets at a loss to cover liabilities.

24. What is true regarding a solvent but illiquid financial institution?

    (a) Their liabilities are worth more than their assets, but they have a positive net worth.

    (b) The present value of its assets are greater than its liabilities, but it lacks liquid assets to meet it liabilities.

    (c) The assets have greater value than the liabilities, but the liabilities are illiquid and the assets are liquid.

    (d) Their liabilities are worth more than their assets, and therefore they have negative net worth.

25. What is the role of a lender of last resort?

    (a) Fed lending money to insolvent institutions until they have positive net worth.

    (b) Fed lending to individuals when loans are denied by financial institutions.

    (c) Fed lending money to financial institutions that have positive net worth but lacking liquid funds to meet their liabilities.

    (d) Fed guaranteeing depositors' funds up to a certain level.

Short-answer and problem-solving questions: Provide written answers to each question in the space provided.

26. (6 points) Use a market for bonds to describe and illustrate the difference in the rate of interest paid for one-year U.S. federal government bonds and ten-year U.S. federal government bonds. Use two graphs for the two bond markets, and illustrate the difference in the price of bonds. Which bond has a higher interest rate? What would you call this premium?

27. (6 points) Use a market for bonds to describe and illustrate the difference in the rate of interest paid for one-year U.S. federal government bonds and ten-year U.S. federal government bonds. Suppose the Fed conducts an open market purchase of ten-year government bonds. Describe and illustrate the difference in the price of bonds, and how that difference changes due to the open market operation. Use two graphs for the two bond markets.

28. (6 points) Suppose people expect a recession is starting and the Fed will take a response that will stimulate spending. Suppose people expect the recession to end after two years, and at that point they expect the Fed to reverse their actions taken at the onset of the recession. Draw and describe a yield curve that illustrates this situation. Identify the two-year maturity in your illustration.

29. (6 points) Compare the situation in bond markets in which the probability of defaults are known by lenders versus when the probability of default are not known by lenders. How do the demand for each type of bond compare to each other? What is the impact of the asymmetric information on the interest rate on bonds? What is the impact on the quantity of borrowing? What type of asymmetric information is this?

30. (6 points) Describe moral hazard behavior in the financial and banking industry and two ways that financial firms manage that risk.

31. (6 points) Describe how a liquidity crisis can lead to a solvency crisis. Clearly define the difference in a liquidity problem versus a solvency problem in your answer.

32. (6 points) Describe what is systemic risk. Describe one reason a government may want to rescue an insolvent financial institution. Describe one reason why it may want to let the financial institution fail.

33. (6 points) Do banks typically have a positive or negative duration gap? Explain your answer by listing common bank assets and liabilities, and whether each typically has long or short durations.