

The Iowa Electronic Markets

Personal Finance and Portfolio Management Strategies

Examination

Curriculum using the IEM Federal Reserve
Monetary Policy and the Computer Industry
Returns Markets

By

Jan E. Christopher

and

Juliet U. Elu

Personal Finance and Portfolio Management Strategies Module Exam

Personal Finance and Portfolio Management Strategies Module Exam

Part I. Multiple Choice Review Questions

1. Inflation is a problem for the economy but will most likely benefit:
 - a. the government
 - b. borrowers
 - c. retired people
 - d. lenders

2. A risk premium associated with interest rates refers to:
 - a. expected lower inflation
 - b. higher earnings due to uncertainty
 - c. the opportunity cost of borrowing
 - d. lower consumer prices

3. The Fed is different from commercial banks and is referred to as:
 - a. spending by the federal government
 - b. the Federal Reserve System and is the bankers' bank
 - c. government regulation of business
 - d. The Federal Deposit Insurance Corporation

4. The time value of money refers to:
 - a. changing economic demographic trends in our society
 - b. changes in interest rates
 - c. increases in the amount of money as a result of interest
 - d. financial decisions that require borrowing funds from a financial institution

5. What type of calculation would provide you with the value after 20 years of a savings account in which you deposited \$100 and made no further deposits?
 - a. future value of a series of deposits
 - b. present value of a series of deposits
 - c. future value of a single amount
 - d. present value of a single amount

6. Which of the following is considered a long-term financial strategy?
 - a. the purchase of life insurance to cover current needs of dependents
 - b. the renting of an apartment to save for the purchase of a home
 - c. the creation of a budget
 - d. the investment in a growth mutual funds to accumulate retirement funds

7. An example of a personnel and employment document is a:
 - a. Social Security card
 - b. budget
 - c. property tax bill
 - d. passbook

8. A personal balance sheet shows:
 - a. family financial goals
 - b. earnings on savings and investments
 - c. amounts budgeting for spending
 - d. items owned and amounts owed

9. Items of value less amounts owed to others equals:
 - a. budgeted expenses
 - b. total liabilities
 - c. net assets
 - d. net worth

10. Current liabilities differ from long-term liabilities based on:
 - a. current economic conditions
 - b. the amount owed
 - c. the financial situation of the creditor
 - d. the ability to meet your short-term obligation when the debt is due

11. Total earnings of a person less deductions for taxes and other item is called:
 - a. take-home pay
 - b. net worth
 - c. gross pay
 - d. budgeted income

12. Which of the following payments would be considered a variable expense?
 - a. a telephone bill
 - b. a mortgage payment
 - c. rent
 - d. a monthly parking fee

13. Changes in the cost of living are:
 - a. not a factor when preparing a budget
 - b. constant from month to month
 - c. different in various geographic areas
 - d. the same for different locations

14. The Scott family has a difficult time staying on a budget. In an effort to actually see what funds are available for various expenses, what type of budget would be the most appropriate?
 - a. a mental budget
 - b. a physical budget
 - c. a written budget
 - d. a computerized budget

15. The storage of funds is the purpose of:
 - a. cash checking services
 - b. credit card services
 - c. borrowing services
 - d. savings services

16. When interest rates are rising, a person would best be served by doing which of the following?
 - a. variable-rate loans
 - b. short-term loans
 - c. long-term savings instruments
 - d. short-term savings instruments

17. Which of the following have traditionally offered the greatest variety of financial services?
 - a. a commercial bank
 - b. a mutual savings bank
 - c. a credit union
 - d. an investment company

18. What advantage do credit unions have over other financial institutions?
 - a. variable-rate savings plans
 - b. flexible-rate loans
 - c. interest-bearing checking accounts
 - d. low-cost personal loans

19. Which of the following savings plan is not covered by federal deposit insurance?
 - a. a certificate of deposit
 - b. a money market account
 - c. a money market fund
 - d. a passbook account

20. Savings compounded in which of the following ways would have the highest effective yield?
 - a. annually
 - b. Semiannually
 - c. monthly
 - d. weekly

21. What type of account is designed for students and people who write only a few checks each month?
 - a. special or activity account
 - b. regular checking account
 - c. EFT account
 - d. a share draft account

22. Debt capital is
 - a. money that has been allocated to retirement programs
 - b. money that does not have to be repaid
 - c. money obtained from lenders
 - d. money obtained from employee stock option programs

23. Which of the following is **not** a true statement?
- Finding a buyer for a piece of real estate can be difficult if loan money is scarce
 - There are many factors to consider before investing in real estate
 - Poor location can cause a piece of real estate property to go down in value
 - There is no reason to evaluate a real estate investment because real estate always increases in value sooner or later
24. To calculate current yields, the annual income amount is divided by
- total return
 - future return
 - market value
 - original value
25. A corporation whose stock is owned by relatively few people and is not traded openly in stock markets is called a(n)
- preferred corporation
 - equity corporation
 - private corporation
 - public corporation
26. When investors are optimistic about the overall economy and buy stocks, it is known as a(n)
- book market
 - bull market
 - equity market
 - bear market
27. A market for existing financial securities that are currently traded between investors is called the
- a primary market
 - a secondary market
 - a fundamental market
 - a technical market
28. A market where newly issued securities are currently traded between investors is called the
- primary market
 - secondary market
 - fundamental market
 - technical market
29. Which of the following statement is correct?
- Interest payments to bondholders are at the discretion of the company
 - Bonds are a form of debt capital
 - Bonds do not have to be repaid at maturity
 - Stock must be repaid at maturity

30. If overall interest rates in the economy rise, a corporate bond with a fixed interest rate will generally
- be returned to the corporation
 - remain unchanged
 - increase in value
 - decrease in value
31. When a bond is selling for more than its face value, it is said to be selling at
- prospectus value
 - conservative value
 - discount
 - premium
32. The value of the mutual fund's portfolio minus the mutual fund's liabilities divided by the number of shares outstanding is called the
- accounting value
 - per share value
 - book value
 - net asset value
33. A mutual fund in which no sales charge is paid by the individual investor is called
- a convertible fund
 - a no-load fund
 - a closed-end fund
 - an open-end fund
34. An individual who helps investors decide when to switch their investment from one fund to another fund is called a(n)
- fund consultant
 - opportunity timer
 - financial planner
 - fund evaluator
35. The process of finding present values is frequently called
- Annualizing
 - Compounding
 - Discounting
 - Leasing
36. When a loan is amortized over a five year term, the
- The rate of interest is reduced each year
 - Amount of interest paid is reduced each year
 - Payment is reduced each year
 - Balance is paid as a balloon payment in the fifth year

37. Determine how much \$1,000 deposited in a saving account paying 8 percent (compounded annually) will be worth after 5 years
- \$5,526
 - \$ 784
 - \$1,400
 - \$1,469
38. Nina wants to have \$200,000 in an account in 20 years. If her account earns 11 percent per annum over the accumulation period, how much must she save per year (end of year) to have the \$200,000?
- \$25,116
 - \$3,115
 - \$10,000
 - \$3,492
39. Bank of America has agreed to loan you \$10,000 at 11 percent for 5 years to purchase a car. You are required to make equal, annual, end-of-year payments that include both principal and interest on the outstanding balance. Determine the amount of these annual payments (to the nearest dollar)
- \$2,000
 - \$3,100
 - \$2,706
 - \$1,100
40. Renting is more advantageous than buying a home for
- permanence of residence
 - long-term investment purposes
 - lower short-term living costs
 - receiving tax benefits
41. Renting would be most appropriate for people who
- desire the financial benefits of increased equity
 - have limited funds currently available
 - want to reduce their taxes
 - have difficulty establishing credit
42. Ownership of an individual housing unit in a building is commonly called
- zoned housing
 - manufactured housing
 - modular housing
 - a condominium
43. A common financial benefit of home ownership is
- increased property value if in the right location
 - tax deductibility of the down payment
 - a low security deposit
 - amortization of the growth of equity

44. Which of the following would increase the speed of equity growth for a homebuyer?
- making larger deposits to the escrow account
 - making a down payment of 10% rather than 20%
 - obtaining a mortgage interest rate of 9.00% rather than 8.00%
 - obtaining a 15-year mortgage rather than a 30-year mortgage
45. Which of the following is an example of a conventional mortgage?
- a home equity loan
 - a fixed-rate mortgage
 - an FHA mortgage
 - a buy down
46. Refinancing a mortgage is recommended when
- two or more points are required by the lender at the time of closing
 - interest rates fall
 - interest rates rise
 - the escrow account balance declines
47. Which of the following is fully deductible under current U.S. income tax policy?
- Mortgage interest.
 - Credit card interest
 - Roth IRA contribution.
 - A medical expense.
48. Which of the following is used by taxpayers to adjust taxable income?
- Passive income
 - Child care expenses
 - IRA contributions.
 - Commissions and bonuses.
49. An exemption refers to
- Taxable income.
 - Deductible expenses.
 - A reduction from adjusted gross income
 - Amounts not subject to an IRS audit
50. An example of tax-exempt income is
- Gambling winnings.
 - Pension funds.
 - Rental income.
 - Interest from municipal bonds.
51. Which of the following will serve as a good tax shelter for investors?
- Tax deferred investments.
 - Purchasing municipal bonds if you are in the high income bracket.
 - Purchasing and financing a home.
 - All of the above.

52. Coverage that pays for the current replacement cost of a stolen or damaged item is called:
- Replacement value coverage.
 - Endorsement coverage.
 - Umbrella coverage.
 - Actual cash value coverage.
53. Driver classification includes information on a person's _____ and it is used to set auto insurance rates.
- Type of automobile.
 - Place of residence
 - Driving habits.
 - Credit rating.
54. Which type of health insurance plan is administered by each state within broad federal requirements and guidelines?
- Medicare
 - Blue Cross
 - Medicaid
 - HMO & PPO
55. A settlement option that provides for payment of life insurance proceeds in equal periodic installments for a specified number of years after death is called
- Lump-sum payment.
 - Limited installment payment.
 - Life income option.
 - Interest principle option.
56. Which one of the following insurance covers general catastrophes such as automobile, homeowners, and professional liabilities?
- Professional liability insurance.
 - Property liability insurance.
 - Comprehensive liability insurance
 - Umbrella liability insurance.
57. Which one of the following health care providers have contracts with selected physicians to provide individuals with health care services for a fixed prepaid monthly premium?
- Preferred Provider Organizations (PPOs).
 - Health Maintenance Organizations (HMOs).
 - Blue Cross and Blue Shield.
 - All of the above.
58. Alan Greene recently purchased MSFT contracts in the IEM Computer Industry Returns market to hedge a risk position. If the price of the MSFT contract is increasing:
- Alan Greene is "gaining"
 - Alan Greene is "losing"
 - Alan Greene is neither "gaining" nor "losing".
 - None of the above.

Answers:

- | | | | | | | | | | | | |
|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|
| 1. | B | 2. | C | 3. | B | 4. | C | 5. | C | 6. | D |
| 7. | A | 8. | D | 9. | D | 10. | D | 11. | A | 12. | A |
| 13. | C | 14. | C | 15. | D | 16. | D | 17. | A | 18. | D |
| 19. | C | 20. | D | 21. | A | 22. | C | 23. | D | 24. | C |
| 25. | C | 26. | B | 27. | B | 28. | A | 29. | B | 30. | D |
| 31. | D | 32. | D | 33. | B | 34. | C | 35. | C | 36. | B |

37. D --- $FV_5 = PV_0(FVIF_{.08,5}) = 1,000 (1.469) = \$1,469$ or $PV_0(1 + .08)^5$

38. B -- Future Value of an Annuity = $PMT = AMT/FVIFA_{.11,20} = 200,000/64.203 = \$3,115$

39. C --- Present Value of an Annuity = $PMT = AMT/PVIFA_{.11,5} = 10,000/3.696 = \$2,706$

- | | | | | | | | | | | | |
|-----|---|-----|----|-----|---|-----|---|-----|---|-----|---|
| 40. | C | 41. | B. | 42. | D | 43. | A | 44. | D | 45. | B |
|-----|---|-----|----|-----|---|-----|---|-----|---|-----|---|

- | | | | | | | | | | | | |
|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|
| 46. | B | 47. | A | 48. | C | 49. | C | 50. | D | 51. | D |
|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|

- | | | | | | | | | | | | |
|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|
| 52. | A | 53. | C | 54. | C | 55. | B | 56. | D | 57. | B |
|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|

- | | |
|-----|---|
| 58. | A |
|-----|---|

Personal Finance and Portfolio Management Strategies

Module Exam

Personal Finance and Portfolio Management Strategies Module Exam

Part II. Essay Questions

1. Explain how age, marital status, household size, employment status, and other personal factors affect financial planning.
2. What are some of the strategies that an individual can take to achieve financial independence?
3. Using the Time Value Of Money table (or manually), calculate (a) the present value of \$500 received in 8 years with an interest rate of 8 percent; and, (b) the future value of \$100 at 7 percent in 10 years?
4. Joshua Charles plans to buy a house for \$60,000. If that real estate property is expected to increase in value 5 percent each year, (a) what is the appropriate value seven years from now? (b) If his income is \$30,000 per year for a family of three, and prices increase by four percent a year for the next three years, what amount will the family need for living expenses?
5. Five years ago, the Honda Civic cost \$12,000, which was the average cost of a small car, but today, the same car costs \$15,000. What is the rate of increase of small cars within five years?
6. What is the (a) value of a savings account started with \$1,000 earning 6 percent (compounded annually) after 10 years? (b) Amount you would have, if you deposit \$1,000 a year for 30 years at 8 percent (compounded annually)?
7. What is (a) the annual opportunity cost of a checking account that requires a minimum balance to avoid service charges? (Assume an interest rate of 5 percent.) (b) the annual cost of an interest bearing checking account paying 5 percent with a minimum balance of \$500, an average monthly balance of \$600; and monthly service charges of \$15 for falling below the minimum balance, which happens three times a year (no interest earned in these months).
8. Economic analysts predict that a new class of borrowers may be at risk if economic growth suddenly slows-down. Discuss the implications of this statement. Why are consumers spending and borrowing more?
9. Ten years ago, Anne Jones purchased a home for \$100,000. Today, the home is worth \$150,000. Her remaining mortgage balance is \$50,000. Assume that Anne can borrow up to 80 percent of the market value, what is the maximum amount she can borrow?

10. Ms. Linda Adam's monthly gross income is \$2,000. Her employer withholds \$400 in federal, state, and local income taxes and \$160 in Social Security taxes per month. Linda contributes \$80 per month for her IRA. Her monthly payments for VISA, Master Card, and Discover card are \$35, \$30, and \$20, respectively. Her monthly payment on an automobile loan is \$285. What is Linda's debt payments-to-income ratio? Is Linda living within her means?
11. Brenda Charles is contemplating on buying or renting, using the data below determine if it is better for her to buy or rent?
- | <i>Rental Costs</i> | <i>Buying Costs</i> |
|-------------------------|--|
| Annual rent, \$7,380 | Annual mortgage payments, \$9,800
(\$9,575 is interest) |
| Insurance, \$145 | Property taxes, \$1,780 |
| Security deposit, \$650 | Insurance/maintenance, \$1,050 |
| | Down payment/closing costs, \$4,500 |
| | Growth in equity, \$225 |
| | Estimated annual appreciation, \$1,700 |
12. After visiting several automobile dealerships, Jack White selects the car he wants. He likes its \$10,000 price, but financing through the dealer is no bargain. He has \$2,000 cash for a down payment, so he needs an \$8,000 loan. In shopping at several banks for an installment loan, he learns that the interest is quoted on most automobile loans at add-on rates. That is, during the life of the loan, interest is paid on the full amount borrowed, although a portion of the principal has been paid back. Jack borrows \$8,000, for a period of four years, at an add-on interest rate of 11 percent. (a) What is the total interest on Jack's loan? (b) What is the total cost of the car? (c) What is the monthly payment? (d) What is the annual percentage rate (APR)?
13. Tammy Jackson purchased 100 shares of All-American Manufacturing Company stock at \$29 ½ a share. One year later, she sold the stock for \$38 a share. She paid her broker a \$34 commission when she purchased the stock and a \$42 commission when she sold it. During the 12 months that she owned the stock, she received \$184 in dividends. Calculate Ms. Jackson's total return on this investment.
14. (a) How important is the investment objective as stated in the fund's prospectus?
(b) What is a family of funds? How are the funds related to shareholder exchanges?
15. Explain the meaning of the following terms: (a) bid, (b) ask, (c) limit order (d) stock index futures.
16. Stock price volatility comes primarily from two sources: firm-specific risks and market risks. Explain. How are firm-specific risks and market risks managed?
17. What characteristics distinguish the IEM from other futures markets?
18. List five markets currently trading on the IEM and rank them in order of their liquidity. Justify your ranking scheme.

Answers

1. A person's needs, values, and goals are positively correlated with these demographic factors. The dynamic nature (changes) of a person's life means changes in financial goals, spending habits, and other financial activities, such as insurance.
2. Financial planning strategies to achieve financial independence include, but not limited to: developing a savings plan, investing in stocks and bonds, purchasing real estate for investment purposes, and various types of investment with taxes in mind.
3. $PV = PMT/(1 + i)^n = 500/(1.08)^8 = 500 \times 0.54 = \270
 $FV = PMT(1 + i)^n = 100(1.07)^{10} = 100 \times 1.967 = \196.70
4. (a) $\$60,000 \times 1.407 = \$84,420$
(b) $\$30,000 \times 1.12 = \$33,600$
5. $(\$15,000 - \$12,000)/\$12,000 = .25$ (25 percent)
6. (a) $\$1000 \times 1.791 = \1791
(b) $(\$1,000 \times 113.28 \text{ (same as } FVIFA_{.08,30} \text{)}) = \$113,280$
7. (a) $\$350 \times .05 = \17.50
(b) $\$600 \times .05 = 30 \times 9/12 = \22.50 less \$45 service charge = \$22.50 net cost
8. Usually when the economy slows down, people may lose their jobs, large income growth could end, and the value of stock portfolios may decline making borrower high risk. Consumers are spending and borrowing more because of the strong economy, high incomes, and bulging stock portfolios which may all disappear if an economic slow down occurs.
9. Present value of Anne's home = \$150,000. She can borrow up to 80 percent of the market value, or \$120,000 (80 percent of \$150,000). She still owes \$50,000 mortgage on her home. Therefore, she can borrow an additional \$70,000 (\$120,000 - \$50,000).
10.

Linda's Gross Income	=	\$2,000
Less: Income taxes	=	- 400
Less: Social Security tax	=	- 160
Less: IRA contribution	=	<u>- 80</u>
Net take-home pay	=	<u>\$1,360</u>

Her monthly payments on VISA, Master Card, Discover Card, and a car loan add up to \$370 per month. Linda's debt-payments-to-income ratio is 370 to 1,360, or 27.2 percent. This ratio exceeds the recommended 20 percent figure. Therefore, Linda is overextended. Her maximum monthly loan and credit card payments should not be over \$272 (20 percent of \$1,360)

11. Assume an after-tax saving interest rate of 6 percent and a tax rate of 28 percent.
- | <i>Rental Costs</i> | | <i>Buying Costs</i> | |
|---------------------|-----------------------------------|---------------------|---|
| \$7,380 | Rent | \$9,800 | Mortgage payments |
| 145 | Insurance | 2,830 | Taxes |
| 39 | Interest lost on security deposit | 70 | Interest lost on down payment, closing cost |
| \$7,564 | Total rental costs | 225 | Growth in equity |
| | | | 1,700 |
| | Annual appreciation | | |
| | | 2,681 | Tax savings for mortgage interest |
| | | 498 | Tax savings for property taxes |
| | | \$7,796 | Total buying costs |

Brenda is better off renting since the rental cost is lower than buying cost.

12. (a) What is the total interest on Jack's loan?
- Cash price = \$10,000
 Down payment = \$2,000
 Amount of the loan = \$8,000
 Length of the loan = 4 years or 48 months
 Quoted add-on interest = 11 percent
 Total interest: $I = P \times r \times T = \$8,000 \times .11 \times 4 = \$3,520$
- (b) What is the total cost of the car?
 Total cost = Down payment + total interest + principal
 $= \$2,000 + \$3,520 + \$8,000 = \$13,520$
- (c) What is the monthly payment?
 Monthly payment = $\$3,520 + \$8,000$ divided by 48 = \$240
- (d) What is the annual percentage rate (APR)?
 $APR = (2 \times N \times I) / (P [N + 1])$
 $= (2 \times 12 \times \$3,520) / (\$8,000 [48 + 1]) = (84,480) / (392,000) = 21.55$ percent
13. Current Return = \$184 in dividends over the past 12 months
 Purchase Price = $\$29.50 \times 100$ shares + \$34 commission = \$2,984
 Selling Price = $\$38 \times 100$ shares - \$42 commission = \$3,758
 Capital Gain = $\$3,758 - \$2,984 = \$774$
 Total Return = \$184 Current Return + \$774 Capital Gain or \$958.
14. (a) The managers of mutual funds tailor their investment portfolios to the investment objectives of their customers. As such, investors must make sure that their objectives and a prospective mutual fund's objectives match. (b) A family of funds exists when one investment company manages a group of mutual funds. Each fund within the family has a different financial objective. Generally, investors may give instructions to switch from one fund to another within the same family.

15. A request to “buy” is called the “bid” price. A request to “sell” is called the “asked” price. A limit order is the request to buy or sell a contract at a given price or better. Limit orders are placed at prices different from the current price levels of the market. Stock index futures are contracts in which the underlying asset is a group of stocks included in one of the major stock price indexes such as the S&P 500 Composite Price Index.
16. Firm-specific risks are those events that affect the firm as an individual business entity; whereas market risks are those events that affect every firm operating in an economy. Firm-specific risks are managed by diversifying an investment portfolio, but this diversification cannot reduce the market risk. Stock index futures are used to manage market risk. Stock index futures are a claim on the value of the contract, and are sometimes referred to as cash settlement contracts. Sellers of futures contracts make a profit when futures prices fall. Many investors, therefore, hedge against volatility by hedging their investment portfolios with financial futures contracts.