**Chapter 28**

**Investment Policy and the Framework of the CFA Institute**

**Multiple Choice Questions**

1. The CFA Institute divides the process of portfolio management into three main elements, which are \_\_\_\_\_\_, \_\_\_\_\_\_, and \_\_\_\_\_\_.   
A. planning; execution; results  
B. security selection; asset allocation; action  
C. planning; asset allocation; feedback  
**D.** planning; execution; feedback  
E. risk tolerance; feedback; action

The three main elements, are planning, execution, and feedback.

 2. The planning phase of the CFA Institute's investment management process   
**A.** uses data about the client and capital market  
B. uses details of optimal asset allocation and security selection  
C. uses changes in expectations and objectives  
D. uses data about the client and capital market, uses details of optimal asset allocation and security selection, and uses changes in expectations and objectives  
E. None of these is true.

The planning phase of the CFA Institute's investment management process uses data about the client and capital market.

 3. The execution phase of the CFA Institute's investment management process   
A. uses data about the client and capital market  
**B.** uses details of optimal asset allocation and security selection  
C. uses changes in expectations and objectives  
D. uses data about the client and capital market, uses details of optimal asset allocation and security selection, and uses changes in expectations and objectives  
E. None of these is true.

The execution phase of the CFA Institute's investment management process uses details of optimal asset allocation and security selection.

4. The feedback phase of the CFA Institute's investment management process   
A. uses data about the client and capital market  
B. uses details of optimal asset allocation and security selection  
**C.** uses changes in expectations and objectives  
D. uses data about the client and capital market, uses details of optimal asset allocation and security selection, and uses changes in expectations and objectives  
E. None of these is true.

The feedback phase of the CFA Institute's investment management process uses changes in expectations and objectives.

 5. \_\_\_\_\_\_\_\_\_\_ refer to strategies aimed at attaining the established rate of return requirements while meeting expressed risk tolerance and applicable constraints.   
A. Investment constraints  
B. Investment objectives  
**C.** Investment policies  
D. All of these are true.  
E. None of these is true.

Objectives are goals, constraints refer to actions the investor is unwilling to take; both objectives and constraints determine policies.

 6. One incorrect belief that is often cited as a reason for fully-funded pension funds to invest in equities is   
A. stocks have higher risk.  
B. bonds have lower returns.  
**C.** stocks provide a hedge against inflation.  
D. stocks have higher returns.  
E. All of these are incorrect beliefs that are often cited.

Nominal returns on stocks are highly correlated with inflation, yet many pension managers cite inflation protection as a reason for investing in equities.

 7. \_\_\_\_\_\_\_\_\_\_ in the process of asset allocation.   
A. Deriving the efficient portfolio frontier is a step  
B. Specifying asset classes to be included in the portfolio is a step  
C. Specifying the capital market expectations is a step  
**D.** Deriving the efficient portfolio frontier is a step, specifying asset classes to be included in the portfolio is a step, and specifying the capital market expectations is a step  
E. None of these is true.

Deriving the efficient portfolio frontier is a step, specifying asset classes to be included in the portfolio is a step, and Specifying the capital market expectations is a step.

8. Questionnaires and attitude surveys suggest that risk tolerance   
A. increases with age.  
**B.** decreases with age.  
C. stays constant over the life cycle for most investors.  
D. cannot be assessed.  
E. None of these is true.

The life-cycle view of investment behavior suggests that investors are more risk tolerant when they are younger, and surveys support this view.

 9. \_\_\_\_\_\_\_\_\_\_ can be used to create a perfect inflation hedge   
A. Gold  
B. Real estate  
**C.** CPI-linked bonds  
D. The S&P 500 index  
E. None of these is true.

The CPI is the rate of inflation, thus CPI-linked bonds can be used to create a perfect inflation hedge.

10. A fully-funded pension plan can invest surplus assets in equities provided it reduces the proportion in equities when the value of the fund drops near the accumulated benefit obligation. This strategy is referred to as   
A. immunization.  
B. hedging.  
C. diversification.  
**D.** contingent immunization.  
E. overfunding.

Contingent immunization allows the fund to participate in the higher returns of the equity market while protecting the benefits of plan participants.

 11. Workers who change jobs may wind up with lower pension benefits at retirement than otherwise identical workers who stay with the same employer, even if the employers have defined benefit plans with the same final-pay benefit formula. This is referred to as   
A. an accumulated benefit obligation.  
B. an unfunded liability.  
C. immunization.  
D. indexation.  
**E.** the portability problem.

The portability problem results in reduced benefits for workers who change jobs but cannot take accumulated benefits from defined benefit plans when they move.

12. The \_\_\_\_\_\_\_\_\_\_ the proportion of total return that is in the form of price appreciation, the \_\_\_\_\_\_\_\_\_\_ will be the value of the tax-deferral option for taxable investors.   
**A.** greater, greater  
B. greater, lower  
C. lower, greater  
D. cannot tell from the information given.  
E. None of these is true.

Deferral of the capital gain tax allows the investment to grow at a faster rate until the tax is actually paid.

 13. An important benefit of Keogh plans is that   
**A.** they are not taxable until funds are withdrawn as benefits.  
B. they are protected against inflation.  
C. they are automatically insured by the Federal government.  
D. they are not taxable until funds are withdrawn as benefits and they are protected against inflation.  
E. they are not taxable until funds are withdrawn as benefits and they are automatically insured by the Federal government.

Keogh plans, like other tax-deferred retirement plans, are not subject to taxes until funds are withdrawn as benefits.

 14. Variable life insurance   
A. combines life insurance with a tax-deferred annuity.  
B. provides a minimum death benefit that increases subject to investment performance.  
C. can be converted to a stream of income.  
**D.** All of these are true.  
E. None of these is true.

Variable life insurance includes all of the listed features.

 15. Endowment funds are held by \_\_\_\_\_\_\_\_\_\_.   
A. charitable organizations  
B. educational institutions  
C. for profit firms  
**D.** charitable organizations and educational institutions  
E. educational institutions and for profit firms

Endowments are funds established for not for profit organizations, such as colleges, universities, charities, hospitals, etc.

 16. \_\_\_\_\_\_\_\_\_\_ center on the trade-off between the return the investor wants and how much risk the investor is willing to assume.   
A. Investment constraints  
**B.** Investment objectives  
C. Investment policies  
D. All of these are true.  
E. None of these is true.

The objective is to earn the maximum return, given the amount of risk the investor is willing to assume.

17. The stage an individual is in his/her life cycle will affect his/her \_\_\_\_\_\_\_\_\_\_.   
A. return requirements  
B. risk tolerance  
C. asset allocation  
D. return requirements and risk tolerance  
**E.** return requirements, risk tolerance, and asset allocation

The stage in the life cycle affects risk tolerance and therefore affects return requirements and asset allocation.

 18. A remainderman is \_\_\_\_\_\_\_\_\_\_.   
A. a stockbroker who remained working on Wall Street after the 1987 crash  
B. an employee of a trustee  
C. one who receives interest and dividend income from a trust during their lifetime  
**D.** one who receives the principal of a trust when it is dissolved  
E. None of these is true.

When the trust is dissolved, the remainderman receives the remaining principal.

 19. \_\_\_\_\_\_\_\_\_\_ are boundaries that investors place on their choice of investment assets.   
**A.** Investment constraints  
B. Investment objectives  
C. Investment policies  
D. All of these are true  
E. None of these is true.

Investment constraints consist of actions the investor is unwilling to take.

 20. The investment horizon is:   
A. the investor's expected age at death.  
B. the starting date for establishing investment constraints.  
C. based on the investor's risk tolerance.  
**D.** the date at which the portfolio is expected to be fully or partially liquidated.  
E. None of these is true.

The investment horizon is the planned liquidation date.

 21. Liquidity is:   
A. the ease with which an asset can be sold.  
B. the ability to sell an asset for a fair price.  
C. the degree of inflation protection an asset provides.  
D. All of these are true.  
**E.** the ease with which an asset can be sold and the ability to sell an asset for a fair price.

Liquidity refers to the speed at which an asset can be sold for a fair price.

22. The objectives of personal trusts normally are \_\_\_\_\_\_\_\_\_\_ in scope than those of individual investors and personal trust managers typically are \_\_\_\_\_\_\_\_\_\_ than individual investors.   
A. broader, more risk averse  
B. broader, less risk averse  
**C.** more limited, more risk averse  
D. more limited, less risk averse  
E. None of these is true.

The objectives of personal trusts normally are more limited in scope than those of individual investors and personal trust managers typically are more risk averse than individual investors.

 23. When a company sets up a defined contribution pension plan, the \_\_\_\_\_\_\_\_\_\_ bears all the risk and the \_\_\_\_\_\_\_\_\_\_ receives all the return from the plan's assets.   
**A.** employee, employee  
B. employee, employer  
C. employer, employee  
D. employer, employer  
E. cannot tell; depends on the economic environment.

With a defined contribution plan, the employee bears the risk of the portfolio returns and thus risk of benefit levels. However, the employee also receives all of the returns generated by the defined contribution plan.

 24. Suppose that the pre-tax holding period returns on two stocks are the same. Stock A has a high dividend payout policy and stock B has a low dividend payout policy. If you are an individual in a high marginal tax bracket and do not intend to sell the stocks during the holding period, \_\_\_\_\_\_\_\_\_\_.   
A. stock A will have a higher after-tax holding period return than stock B  
B. the after-tax holding period returns on stocks A and B will be the same  
**C.** stock B will have a higher after-tax holding period return than stock A  
D. it is impossible to determine which stock will have a higher after-tax holding period return given the information available  
E. None of these is true.

Taxes are not paid on capital gains until the stock is sold. If the pre-tax holding period returns on the two stocks are the same, more taxes will be paid on the stock with the high dividend payout policy (stock A) and thus the after-tax returns of A will lower than the after-tax returns of B.

25. The prudent investor rule requires \_\_\_\_\_\_\_\_\_\_.   
A. executives of companies to avoid investing in options of companies by which they are employed  
B. executives of companies to disclose their transactions in stocks of companies by which they are employed  
C. professional investors who manage money for others to avoid all risky investments  
**D.** professional investors who manage money for others to constrain their investments to those that would have been approved by the prudent investor  
E. None of these is true.

The prudent investor rule allows one to diversify, which means that some risky investments are allowed in a portfolio. However, the riskiness of the portfolio should be such that a prudent investor would be willing to assume.

 26. The longest time horizons are likely to be set by   
A. banks.  
B. property and casualty insurance companies.  
**C.** pension funds  
D. banks and pension funds  
E. property and casualty insurance companies and pension funds

Banks and non-life insurance companies typically have short time horizons.

 27. The longest time horizons are likely to be set by   
A. banks.  
B. property and casualty insurance companies.  
**C.** endowment funds  
D. banks and endowment funds  
E. property and casualty insurance companies and endowment funds

Endowment funds, pension funds, and life insurance companies typically have long time horizons.

 28. The shortest time horizons are likely to be set by   
A. banks.  
B. property and casualty insurance companies.  
C. pension funds  
**D.** banks and property and casualty insurance companies  
E. property and casualty insurance companies and pension funds

Banks and non-life insurance companies typically have short time horizons.

29. U. S. mutual funds are restricted to holding no more than \_\_\_\_\_\_\_\_\_\_ of any publicly traded corporation.   
A. 1%  
**B.** 5%  
C. 10%  
D. 25%  
E. There is no restriction on percentage ownership.

This restriction is intended to keep professional investors from getting involved in the actual management of corporations.

 30. Institutional investors will rarely invest in which of these asset classes?   
A. Bonds  
B. Stocks  
C. Cash  
D. Real estate  
**E.** Precious metals

Institutional investors typically limit their holdings to the first four of these asset classes.

 31. For an individual investor, the value of home ownership is likely to be viewed   
A. as a hedge against increases in rental rates.  
B. as a guarantee of availability of a particular residence.  
C. as a hedge against inflation.  
**D.** as a hedge against increases in rental rates and as a guarantee of availability of a particular residence.  
E. All of these are true.

Real estate has not been shown to be an effective hedge against inflation.

 32. Assume that at retirement you have accumulated $500,000 in a variable annuity contract. The assumed investment return is 6% and your life expectancy is 15 years. What is the hypothetical constant benefit payment?   
A. $30,000.00  
B. $33,333.33  
**C.** $51,481.38  
D. $52,452.73.  
E. cannot tell without additional information.

PV = −500,000, i = 6, n = 15, PMT = 51,481.38.

33. Assume that at retirement you have accumulated $500,000 in a variable annuity contract. The assumed investment return is 6% and your life expectancy is 15 years. If the first year's actual investment return is 8%, what is the starting benefit payment?   
A. $30,000.00  
B. $33,333.33  
C. $51,481.38  
**D.** $52,452.73  
E. cannot tell without additional information

See 26.27, B = 51,481.38 (1.08/1.06) = 52,452.73.

 34. The first step a pension fund should take before beginning to invest is to \_\_\_\_\_\_\_\_\_\_.   
**A.** establish investment objectives  
B. develop a list of investment managers with superior records to interview  
C. establish asset allocation guidelines  
D. decide between active and passive management  
E. None of these is true.

The first step for any investor is to determine the goals and objectives of the portfolio. All subsequent steps in the investment process follow (such as B, C, D, and other factors).

 35. General pension funds typically invest \_\_\_\_\_\_\_\_\_\_ of their funds in equity securities.   
A. none  
B. 5–10%  
C. 15–35%  
**D.** 40–60%  
E. more than 60%

Pension funds can theoretically maximize tax benefits and minimize administrative costs by investing in fixed income securities, yet they remain highly invested in equities.

 36. The optimal portfolio on the efficient frontier for a given investor depends on   
A. the investor's degree of risk tolerance.  
B. the coefficient, A, which is a measure of risk aversion.  
C. the investor's required rate of return.  
D. the investor's degree of risk tolerance and the investor's required rate of return.  
**E.** the investor's degree of risk tolerance and the coefficient, A, which is a measure of risk aversion.

The investor's position on the efficient frontier is determined by A and B. The investor will opt for the portfolio with the maximum returns at the acceptable level of risk tolerance, which will be on the efficient frontier.

37. The optimal portfolio on the efficient frontier for a given investor does not depend on   
A. the investor's degree of risk tolerance.  
B. the coefficient, A, which is a measure of risk aversion.  
**C.** the investor's required rate of return.  
D. the investor's degree of risk tolerance and the investor's required rate of return.  
E. the investor's degree of risk tolerance and the coefficient, A, which is a measure of risk aversion.

The investor's position on the efficient frontier is determined by A and B. The investor will opt for the portfolio with the maximum returns at the acceptable level of risk tolerance, which will be on the efficient frontier.

 38. Target-date retirement funds are not   
A. funds of funds diversified across stocks and bonds  
B. designed to change their asset allocation as time passes  
C. a simple but useful strategy  
**D.** designed to function much like hedge funds  
E. funds of funds diversified across stocks and bonds, designed to change their asset allocation as time passes, and a simple but useful strategy

Target-date retirement funds are funds of funds diversified across stocks and bonds, change their asset allocation as time passes, and are a simple but useful strategy.

 39. A \_\_\_\_\_\_\_\_\_\_\_ is established when an individual confers legal title to property to another person or institution to manage the property for one or more beneficiaries.   
A. tax shelter  
B. defined contribution plan  
**C.** personal trust  
D. fixed annuity  
E. Keogh plan

Personal trusts are to be managed for the benefit of the beneficiary. Managers of these trusts are often more risk averse than the individual investors.

 40. Professional financial planners should   
A. assess their client's risk and return requirements on a one-time basis.  
B. explain the investment plan to the client.  
C. inform the client about the outcome of the plan.  
D. assess their client's risk and return requirements on a one-time basis, explain the investment plan to the client, and inform the client about the outcome of the plan  
**E.** explain the investment plan to the client and inform the client about the outcome of the plan

They should assess risk and return requirements on an ongoing basis as their clients advance through the life cycle and their needs change.

41. Deferral of capital gains tax   
I) means that the investor doesn't need to pay taxes until the investment is sold.  
II) allows the investment to grow at a faster rate.  
III) means that you might escape the capital gains tax if you live long enough.  
IV) provides a tax shelter for investors.   
A. II and III  
**B.** I, II, IV  
C. I, III, and V  
D. II, III, and IV

The only incorrect response is III. Capital gains tax will have to be paid eventually when the assets are sold.

 42. Deferral of capital gains tax does not   
I) mean that the investor doesn't need to pay taxes until the investment is sold.  
II) allow the investment to grow at a faster rate.  
III) mean that you might escape the capital gains tax if you live long enough.  
IV) provide a tax shelter for investors.   
**A.** III  
B. II  
C. I, II, and V  
D. II, III, and IV

Capital gains tax will have to be paid eventually when the assets are sold.

 43. Which of the following investments **does not** allow the investor to choose how to allocate assets?   
A. Variable Life insurance policies  
B. Keogh plans  
C. Personal funds  
D. Tax qualified defined contribution plans  
**E.** Universal Life policies

Universal Life policies are managed by the insurance company, whose portfolio managers make the decisions about asset allocation.

 44. Which of the following investments allows the investor to choose how to allocate assets?   
A. Variable Life insurance policies  
B. Keogh plans  
C. Personal funds  
D. Tax qualified defined contribution plans  
**E.** All of these are true

Keogh plans, personal funds, variable life insurance policies, and tax qualified defined contribution plans allow investors to choose how assets are allocated.

45. Pension funds   
I) accept contributions from employers, which are tax-deductible.  
II) pay distributions that are taxed as ordinary income.  
III) pay benefits only from the income component of the fund.  
IV) accept contributions from employees, which are not tax-deductible.   
A. I and IV  
B. II and III  
**C.** I and II  
D. I, II, and IV  
E. I, II, III, and IV

The funds aren't limited to using only the income component for payouts and employees' contributions are tax deductible.

 46. Pension funds do not   
I) accept contributions from employers, which are tax-deductible.  
II) pay distributions that are taxed as ordinary income.  
III) pay benefits only from the income component of the fund.  
IV) accept contributions from employees, which are not tax-deductible.   
**A.** III and IV  
B. II and III  
C. I and II  
D. I, II, and IV  
E. I, II, III, and IV

The funds aren't limited to using only the income component for payouts and employees' contributions are tax deductible.

 Stephanie Watson is 23 years old and has accumulated $4,000 in her self-directed defined contribution pension plan. Each year she contributes $2,000 to the plan and her employer contributes an equal amount. Stephanie thinks she will retire at age 67 and figures she will live to age 81. The plan allows for two types of investments. One offers a 3.5% risk-free real rate of return. The other offers an expected return of 10% and has a standard deviation of 23%. Stephanie now has 5% of her money in the risk-free investment and 95% in the risky investment. She plans to continue saving at the same rate and keep the same proportions invested in each of the investments. Her salary will grow at the same rate as inflation.

 47. How much does Stephanie currently have in the safe account; how much in the risky account?   
A. $3,800, $200  
B. $2,000, $2,000  
**C.** $200, $3,800  
D. $2,500, $1,500  
E. $1,500, $2,500

The safe account has .05\*$4,000 = $200 and the risky account has .95\*$4,000 = $3,800.

48. Of the total amount of new funds that will be invested by Stephanie and by her employer on her behalf, how much will she put into the safe account each year; how much into the risky account?   
A. $3,800, $200  
B. $2,000, $2,000  
**C.** $200, $3,800  
D. $2,500, $1,500  
E. $1,500, $2,500

The safe account gets .05\*($2,000 + 2,000) = $200 and the risky account gets .95\*($2,000 + 2,000) = $3,800.

 49. How much can Stephanie be sure of having in the safe account at retirement?   
A. $37,221  
B. $16,423  
C. $11,856  
**D.** $21,156.  
E. $49,219

The value in the safe account in 44 years will be $200\*(1.035)44 + $200\*FVIFA3.5%,44 = $21,156.33.

 50. How much can Stephanie expect to have in her risky account at retirement?   
**A.** $2,731,838  
B. $2,915,415  
C. $1,425,316  
D. $224,651  
E. $3,545,886

The value in the risky account in 44 years will be $3,800\*(1.10)44 + $3,800\*FVIFA10%,44 = $2,731,838.38.

  Genny Webb is 27 years old and has accumulated $7,500 in her self-directed defined contribution pension plan. Each year she contributes $2,000 to the plan and her employer contributes an equal amount. Genny thinks she will retire at age 63 and figures she will live to age 90. The plan allows for two types of investments. One offers a 3% risk-free real rate of return. The other offers an expected return of 12% and has a standard deviation of 39%. Genny now has 20% of her money in the risk-free investment and 80% in the risky investment. She plans to continue saving at the same rate and keep the same proportions invested in each of the investments. Her salary will grow at the same rate as inflation.

51. How much does Genny currently have in the safe account; how much in the risky account?   
**A.** $1,500, $6,000  
B. $3,000, $4,500  
C. $2,000, $5,500  
D. $4,800, $2,700  
E. $3,500, $3,500

The safe account has .20\*$7,500 = $1,500 and the risky account has .8\*$7,500 = $6,000.

 52. Of the total amount of new funds that will be invested by Genny and by her employer on her behalf, how much will Genny put into the safe account each year; how much into the risky account?   
A. $1,500, $2,500  
B. $1,200, $1,800  
**C.** $800, $3,200  
D. $1,250, $2,750  
E. $1,400, $1,600

The safe account gets .2\*($2,000 + 2,000) = $800 and the risky account gets 8\*($2,000 + 2,000) = $3,200.

 53. How much can Genny be sure of having in the safe account at retirement?   
A. $45,473  
B. $62,557  
C. $78,943  
**D.** $54,968  
E. $74,643

The value in the safe account in 36 years will be $1,500\*(1.03)36 + $800\*FVIFA3%,36 = $54,968.17.

 54. How much can Genny expect to have in her risky account at retirement?   
A. $1,800,326  
**B.** $1,905,095  
C. $1,743,781  
D. $1,224,651  
E. $345,886

The value in the risky account in 36 years will be $6,000\*(1.12)36 + $3,200\*FVIFA12%,36 = $1,905,095.42.

  Alex Goh is 39 years old and has accumulated $128,000 in his self-directed defined contribution pension plan. Each year he contributes $2,500 to the plan and his employer contributes an equal amount. Alex thinks he will retire at age 62 and figures he will live to age 86. The plan allows for two types of investments. One offers a 4% risk-free real rate of return. The other offers an expected return of 11% and has a standard deviation of 37%. Alex now has 25% of his money in the risk-free investment and 75% in the risky investment. He plans to continue saving at the same rate and keep the same proportions invested in each of the investments. His salary will grow at the same rate as inflation.

55. How much does Alex currently have in the safe account; how much in the risky account?   
A. $31,200, $46,800  
B. $39,000, $39,000  
**C.** $32,000, $96,000  
D. $45,300, $32,700  
E. $64,000, $14,000

The safe account has .25\*$128,000 = $32,000 and the risky account has 75\*$128,000 = $96,000.

 56. Of the total amount of new funds that will be invested by Alex and by his employer on his behalf, how much will Alex put into the safe account each year; how much into the risky account?   
A. $2,500, $2,500  
B. $3,200, $1,800  
C. $3,000, $2,000  
**D.** $1,250, $3,750  
E. $2,400, $2,600

The safe account gets .25\*($2,500 + 2,500) = $1,250 and the risky account gets 75\*($2,500 + 2,500) = $3,750.

 57. How much can Alex be sure of having in the safe account at retirement?   
A. $132,473  
B. $162,557  
C. $178,943  
D. $189,211  
**E.** $124,643

The value in the safe account in 23 years will be $32,000\*(1.04)23 + $1,250\*FVIFA4%,23 = $124,643.26.

 58. How much can Alex expect to have in his risky account at retirement?   
**A.** $1,400,326  
B. $1,309,529  
C. $1,543,781  
D. $1,224,651  
E. $1,345,886

The value in the risky account in 23 years will be $96,000\*(1.11)23 + $3,750\*FVIFA11%,23 = $1,400,326.

 Alan Barnett is 43 years old and has accumulated $78,000 in his self-directed defined contribution pension plan. Each year he contributes $1,500 to the plan and his employer contributes an equal amount. Alan thinks he will retire at age 60 and figures he will live to age  
83. The plan allows for two types of investments. One offers a 4% risk-free real rate of return. The other offers an expected return of 10% and has a standard deviation of 34%. Alan now has 40% of his money in the risk-free investment and 60% in the risky investment. He plans to continue saving at the same rate and keep the same proportions invested in each of the investments. His salary will grow at the same rate as inflation.

59. How much does Alan currently have in the safe account; how much in the risky account?   
**A.** $31,200, $46,800  
B. $39,000, $39,000  
C. $15,900, $62,100  
D. $45,300, $32,700  
E. $64,000, $14,000

The safe account has .4\*$78,000 = $31,200 and the risky account has 6\*$78,000 = $46,800.

 60. Of the total amount of new funds that will be invested by Alan and by his employer on his behalf, how much will he put into the safe account each year; how much into the risky account?   
A. $1,500, $1,500  
**B.** $1,200, $1,800  
C. $2,000, $1,000  
D. $2,500, $500  
E. $1,400, $1,600

The safe account gets .4\*($1,500 + 1,500) = $1,200 and the risky account gets 6\*($1,500 + 1,500) = $1,800.

 61. How much can Alan be sure of having in the safe account at retirement?   
A. $59,473  
B. $62,557  
C. $78,943  
**D.** $89,211  
E. $104,632

The value in the safe account in 17 years will be $31,200\*(1.04)17 + $1,200\*FVIFA4%,17 = $89,211.

 62. How much can Alan expect to have in his risky account at retirement?   
A. $158,982  
**B.** $309,529  
C. $543,781  
D. $224,651  
E. $345,886

The value in the risky account in 17 years will be $46,800\*(1.10)17 + $1,800\*FVIFA10%,17 = $309,529.

 63. An income beneficiary is \_\_\_\_\_\_\_\_\_\_.   
A. a stockbroker who remained working on Wall Street after the 1987 crash  
B. an employee of a trustee  
**C.** one who receives interest and dividend income from a trust during their lifetime  
D. one who receives the principal of a trust when it is dissolved  
E. None of these is true.

An income beneficiary is one who receives interest and dividend income from a trust during their lifetime.

64. Assume that at retirement you have accumulated $750,000 in a variable annuity contract. The assumed investment return is 9% and your life expectancy is 25 years. What is the hypothetical constant benefit payment?   
A. $30,000.00  
B. $33,333.33  
C. $51,481.38  
**D.** $76,354.69.  
E. Cannot tell without additional information.

PV = −750,000, i = 9, n = 25, PMT = 76,354.69.

65. Assume that at retirement you have accumulated $750,000 in a variable annuity contract. The assumed investment return is 9% and your life expectancy is 25 years. If the first year's actual investment return is 9%, what is the starting benefit payment?   
A. $30,000.00  
B. $33,333.33  
**C.** $76,354.69  
D. $52,452.73  
E. Cannot tell without additional information

See 26.44, B = 76,354.69 (1.09/1.09) = 76,354.69.

66. Assume that at retirement you have accumulated $825,000 in a variable annuity contract. The assumed investment return is 5.5% and your life expectancy is 18 years. What is the hypothetical constant benefit payment?   
**A.** $73,358.93.  
B. $33,333.33.  
C. $51,481.38.  
D. $52,452.73.  
E. Cannot tell without additional information.

PV = −825,000, i = 5.5, n = 18, PMT = 73,358.93.

67. Assume that at retirement you have accumulated $825,000 in a variable annuity contract. The assumed investment return is 5.5% and your life expectancy is 18 years. If the first year's actual investment return is 7%, what is the starting benefit payment?   
A. $30,000.00  
**B.** $74,401.95  
C. $51,481.38  
D. $52,452.73  
E. Cannot tell without additional information

PV = −825,000, i = 5.5, n = 18, PMT = 73,358.93; 73,358.93 (1.07/1.055) = 74,401.95.

 68. Which of the following are commonly thought to be good general investment guidelines?   
I) Don't try to outguess the market, buying and holding generally pays off.  
II) Diversify investments to spread risk.  
III) Investments should be highly concentrated in your company's stock.  
IV) 401K money is best placed in money market accounts because risk is very low.  
V) Investments should be allocated to stocks, bonds, and money-market funds.   
A. I, III, IV  
**B.** I, II, IV  
C. II, IV, V  
D. III, IV, V  
E. I, II, IV, V

Don't try to outguess the market, buying and holding generally pays off, diversify investments to spread risk, investments should be allocated to stocks, bonds, and money-market funds.

 69. Which of the following are commonly thought to be bad general investment guidelines?   
I) Don't try to outguess the market, buying and holding generally pays off.  
II) Diversify investments to spread risk.  
III) Investments should be highly concentrated in your company's stock.  
IV) 401K money is best placed in money market accounts because risk is very low.  
V) Investments should be allocated to stocks, bonds, and money-market funds.   
A. I, III, IV  
B. I, II, IV  
C. II, IV, V  
**D.** III, IV  
E. I, II, IV, V

Good advice would be that investors should not try to outguess the market, buying and holding generally pays off, to diversify investments to spread risk, and that investments should be allocated to stocks, bonds, and money-market funds.

70. The principle of duration matching is   
A. used only in bond portfolio management  
B. a useful concept for investments with target dates  
C. means matching one's assets to one's objectives  
**D.** a useful concept for investments with target dates and means matching one's assets to one's objectives  
E. None of these is true.

The principle of duration matching is a useful concept for investments with target dates and means matching one's assets to one's objectives.

 71. The principle of duration matching is not   
**A.** used only in bond portfolio management  
B. a useful concept for investments with target dates  
C. a means matching one's assets to one's objectives  
D. a useful concept for investments with target dates and a means matching one's assets to one's objectives  
E. None of these is true.

The principle of duration matching is a useful concept for investments with target dates and means matching one's assets to one's objectives.

 72. Target-date retirement funds   
**A.** are funds of funds diversified across stocks and bonds  
B. are inappropriate for most investors  
C. have very high fees  
D. function much like hedge funds  
E. All of these are true

Target-date retirement funds are funds of funds diversified across stocks and bonds.

 73. Target-date retirement funds are not   
A. inappropriate for most investors  
B. very high in fees  
C. designed to function much like hedge funds  
D. inappropriate for most investors and very high in fees  
**E.** All of these are true

Target-date retirement funds are funds of funds diversified across stocks and bonds.

74. Target-date retirement funds   
A. change their asset allocation as time passes  
B. are a simple but useful strategy  
C. function much like hedge funds  
**D.** change their asset allocation as time passes and are a simple but useful strategy  
E. All of these are true

Target-date retirement funds are funds of funds diversified across stocks and bonds, change their asset allocation as time passes, and are a simple but useful strategy.

75. The desirable components of an Investment Policy Statement for individual investors can be divided into \_\_\_\_\_\_\_\_.   
A. three main elements consisting of scope and purpose, governance, and risk management.  
B. three main elements consisting of scope and purpose, governance, and investment, return and risk objectives.  
C. four main elements consisting of scope and purpose, governance, risk management, and feedback.  
**D.** four main elements consisting of scope and purpose, governance, risk management, and investment, return and risk objectives.  
E. five main elements consisting of scope and purpose, governance, risk management, investment, return and risk objectives, and evaluation.

The desirable components of an Investment Policy Statement for individual investors can be divided into four main elements consisting of scope and purpose, governance, risk management, and investment return and risk objectives.

 76. The scope and purpose section of an Investment Policy Statement for individual investors typically consists of defining the \_\_\_\_\_\_\_\_.   
A. return, distribution, and risk requirements  
B. process for review of the IPS  
C. appropriate metrics for risk measurement  
D. relevant constraints  
**E.** context, investor, and structure

The scope and purpose section of an Investment Policy Statement for individual investors typically consists of defining the context, investor, and structure.

 77. The governance section of an Investment Policy Statement for individual investors typically contains \_\_\_\_\_\_\_\_.   
A. assigning the responsibility for determining investment policy  
B. the review process for the IPS  
C. assigning the responsibility for risk management  
D. the review process for the IPS and assigning the responsibility for risk management  
**E.** assigning the responsibility for determining investment policy, the review process for the IPS, and assigning the responsibility for risk management

The governance section of an Investment Policy Statement for individual investors typically contains assigning the responsibility for determining investment policy, the review process for the IPS, and assigning the responsibility for risk management.

78. The risk management section of an Investment Policy Statement for individual investors typically contains \_\_\_\_\_\_\_\_.   
A. relevant constraints  
B. other relevant considerations  
**C.** performance measurement accountabilities, metrics for risk measurement, and the rebalancing process  
D. relevant constraints and other relevant considerations  
E. All of these are true

The risk management section of an Investment Policy Statement for individual investors typically contains performance measurement accountabilities, metrics for risk measurement, and the rebalancing process.

**Short Answer Questions**

79. Discuss the relationships between investor objectives, constraints, and policies.

Investor objectives reflect the investor's attitude toward the risk/return tradeoff. That is, how much risk is the investor willing to take, and what is the maximum return the investor can expect at that risk level. Investor constraints refer to actions the investor is unwilling to take or must take due to certain needs. Examples of constraints are the liquidity needs of the investor, the investment horizon date of the investor, regulation governing various institutional investors, whether or not the investor is subject to taxation, and any other unique needs of the investor (such as social investing constraints).  
Meeting the investor objectives, subject to the investor constraints, results in the formulation of investment policies. Investment policies relate to how the portfolio will be managed, such as the determination of asset allocation, diversification, risk level, tax status, and income generation.  
  
Feedback: The purpose of this question is to determine whether the student has an overall understanding of the investment process.

80. Discuss the tax status of the major categories of institutional investors described in the text.

Mutual funds, pension plans, and endowment funds are not subject to taxation on the earnings of the portfolios. The other institutional investors are subject to income tax. Mutual funds are not taxed if certain requirements regarding diversification and the passing of earnings on to investors are met. Mutual funds do not own the funds they are investing; the shareholders own the funds, the mutual funds are merely performing the investment service. Investors pay taxes on what they earn from the funds. Pension plans do not pay income tax; the benefits are taxed when received. Endowments are portfolios of not-for-profit entities, and thus are tax-free.  
  
Feedback: This question is designed to ascertain whether the student understands the taxation structure (and the reasons for these differences) of the various institutional investors.

 81. Discuss investments as a hedge against inflation

Perfect hedges against inflation are virtually non-existent. CPI futures contracts would be perfect hedges. Floating rate bonds are hedges to the extent that the inflation rate is correlated with interest rates; such a correction is far from perfect. Real assets, such as gold and real estate, and commodities have been suggested as inflation hedges. However, although the price changes on these assets are positively correlated with price changes, the correlations are not very large. The same correlation relationships exist between common stocks and inflation.  
  
Feedback: The purpose of this question is to determine whether the student understands the problem of hedging against inflation and some of the common misperceptions about the feasibility of such hedges.

 82. Discuss four factors you would need to include if you were constructing a retirement planning worksheet.

Factors include how much income you will need in retirement (about 70% of your current salary), how much you expect to receive from Social Security, how much you will receive from your pension, how much you plan to earn from part-time income after you retire, the age at which you plan to retire, how many more years you plan to work before retirement, the inflation rate over the entire period, an assumed rate of return on investments, and an estimate of how long you plan to live after you retire.  
  
Feedback: This question tests the student's understanding of the primary factors involved in preparing for retirement income.

 83. Discuss some of the advantages "personal funds" have over mutual funds.

Personal funds are a user-friendly alternative to mutual funds. They allow for broad diversification according to the investor's preferences and their costs are competitive with those of mutual funds. They eliminate the problem of having to pay taxes on capital gains that you never earned. The investor chooses which securities to hold and when to buy and sell them. The investor doesn't have to rely on a fund manager or management team that might make unfavorable decisions on his behalf. When there is a change of management or strategy in a mutual fund, the investor has to decide whether to stay or sell and face a tax liability. When an investor holds several mutual funds it is likely that there will be some overlap in the funds' holdings. With a personal fund the investor can avoid that and choose only the securities he wants in the amounts he wants for his portfolio. Personal funds are relatively easy to set up and monitor.  
  
Feedback: Personal funds are expected to play a significant role in the future for individual investors. This question assesses the student's understanding of their basic characteristics.