**CFA LEVEL-III, Practice Questions | Questions**

**Reading # 25:** *Risk Management*

Question 1 - #93243

Which of the following operations applies to the monitoring and evaluation systems of an enterprise-wide risk management (ERM) system?

|  |  |
| --- | --- |
| A) | Performing diagnostics on the pricing, value at risk (VAR) computations, and data quality. |
| B) | Computing stress testing to complement traditional value at risk (VAR) based risk measures. |
| C) | Computing value at risk (VAR) metrics for all risks across the firm. |

Question 2 - #92893

Which of the following regarding an effective risk management model is *least* accurate?

|  |  |
| --- | --- |
| A) | When a risk management problem is viewed as a long-run change in fundamentals, corrective action is required. |
| B) | Duration and delta are sufficient for modeling the risk of bonds and options. |
| C) | When a risk management problem is viewed as temporary, the best course of action is often to take no action at all. |

Question 3 - #93215

A manager wishes to lower the financial risk of a portfolio. She looks at the risks of her portfolio associated with currencies and commodities. In attempting to lower the financial risk associated with her portfolio, she should hedge:

|  |  |
| --- | --- |
| A) | the risk of neither currencies nor commodities because neither are associated with financial risk. |
| B) | the risk associated with currencies, but not commodities since commodities are unrelated to financial risk. |
| C) | the risk associated with both currencies and commodities. |

Question 4 - #93234

One goal of all risk management systems should be to:

|  |  |
| --- | --- |
| A) | make the risk level equal to the prevailing level in the market. |
| B) | bring the level of risk to a desired level of risk, which may exceed zero. |
| C) | eliminate all risk, i.e., reduce risk to zero. |

Question 5 - #93194

Jenny Rouse has been a portfolio manager for Theta Advisors for the last five years. The performance of her portfolio has had few returns below its benchmarks since its inception. Which of the following risk measures *best* measures Rouse’s performance?

|  |  |
| --- | --- |
| A) | Sortino ratio. |
| B) | Standard Deviation. |
| C) | Sharpe ratio. |

Question 6 - #92353

With respect to value at risk (VAR), regulatory agencies:

|  |  |
| --- | --- |
| A) | in some industries require its computation and reporting. |
| B) | have mandatory requirements in all financial industries. |
| C) | are studying it, but none have adopted its use. |

Question 7 - #126906

Mark Stober, William Robertson, and James McGuire are consultants for a regional pension consultancy. One of their clients, Richard Smitherspoon, chief investment officer of Quality Car Part Manufacturing, recently attended a conference on risk management topics for pension plans. Smitherspoon is a conservative manager who prefers to follow a long-term investment strategy with little portfolio turnover. Smitherspoon has substantial experience in managing a defined benefit plan but has little experience with risk management issues. Smitherspoon decides to discuss how Quality can begin implementing risk management techniques with Stober, Robertson, and McGuire. Quality's risk exposure is evaluated on a quarterly basis.

Smitherspoon is curious about risk management techniques, and in particular the concept of VAR. He asks, "What does a daily 5% VAR of $5 million mean? I just get so confused with whether VAR is a measure of maximum or minimum loss. Just last month, the consultant from MinRisk, a competing consulting firm, told me it was 'a measure of maximum loss, which in your case means we are 95% confident that the maximum 1-day loss is $5.0 million.'" McGuire states that his definition of VAR is that "VAR is a measure that combines probabilities over a certain time horizon with dollar amounts, which in your case means that one expects to lose a minimum $5 million five trading days out of every 100."

Smitherspoon expresses bewilderment at the different methods for determining VAR. "Can't you risk management types formulate a method that works like calculating a beta? It would be so easy if there were a method that allowed one to just use mean and standard deviation. I need a VAR that I can get my arms around."

Before implementing risk management techniques, Smitherspoon expresses confusion regarding some other measures of risk management. "I know beta and standard deviation, but what is all this stuff about convexity, delta, gamma, and vega?" Stober informs Smitherspoon that delta is the first derivative of the call-stock price curve, and Robertson adds that gamma is the relationship between how bond prices change with changing time to maturity.

The next week, Stober visits the headquarters of TopTech, a communications firm. Their CFO is Ralph Long, who prefers to manage the firm's pension himself because he believes he can time the market and spot upcoming trends before analysts can. Long also believes that risk measurement for TopTech can be evaluated annually because of his close attention to the portfolio. Stober calculates TopTech's 95% surplus at risk to be $500 million for an annual horizon. The expected return on TopTech's asset base (currently at $2 billion) is 5%. The plan has a surplus of $100 million. Stober uses a 5% probability level to calculate the minimum amount by which the plan will be underfunded next year.

Part 1)

Regarding the definitions of VAR, are MinRisk and McGuire correct or incorrect?

|  |  |
| --- | --- |
| A) | Neither is correct. |
| B) | One is correct. |
| C) | Both are correct. |

Part 2)

Of the following VAR calculation methods, the measure that would *most likely* suit Smitherspoon is the:

|  |  |
| --- | --- |
| A) | historical simulation method. |
| B) | variance-covariance method. |
| C) | Monte Carlo simulation method. |

Part 3)

Smitherspoon asks Stober if it would be possible to calculate the VAR for each individual portfolio manager as well as the overall Quality fund. Determine which of Stober's three responses is *most* incorrect.

"VAR is a universally accepted risk measure because it can be applied to practically any investment and is interpreted effectively the same way in each case; it is either the minimum or maximum loss at a given level of significance or confidence. For me to calculate the delta-normal VAR, you will need to provide me with each manager's historical returns distribution and expected return, the time frame you wish to use, and the desired level of significance. I can then calculate VAR for each manager using historical standard deviations and expected returns."

"We can calculate VAR using: the delta-normal method (also known as the mean variance approach), the historical method, or the Monte Carlo method. To calculate each manager's 95% VAR, all we would have to do is use standard deviations and expected returns to calculate 90% confidence intervals."

"Because of the way it is calculated, individual mean-variance VARs can probably be calculated for each of our portfolio managers, regardless of their style or assets under management. The overall fund VAR is then the sum of the individual VARs. To calculate the fund VAR directly, we would have to measure the fund's overall expected return and standard deviation. The problem with calculating it directly like this, however, is that to calculate the fund standard deviation we must consider the correlations of the managers' returns."

|  |  |
| --- | --- |
| A) | Response 2. |
| B) | Response 3. |
| C) | Response 1. |

Part 4)

Using Stober's 5% probability level, the minimum amount by which TopTech's plan will be underfunded next year is *closest* to:

|  |  |
| --- | --- |
| A) | $400 million. |
| B) | $5 million. |
| C) | $25 million. |

Part 5)

VAR is a more relevant measure of firm risk for:

|  |  |
| --- | --- |
| A) | Quality, because of its industry type. |
| B) | Quality, because of its measurement process. |
| C) | TopTech, because of its industry type. |

Part 6)

Regarding the statements on delta and gamma, are Stober and Robertson correct or incorrect?

|  |  |
| --- | --- |
| A) | Only Robertson is correct. |
| B) | Only Stober is correct. |
| C) | Both are correct OR both are incorrect. |

Question 8 - #91915

Robert Meznar is currently employed as a senior software architect in a large established software company. He is 38 years old, and his current salary is $80,000 after tax. Meznar recently sold his stock (acquired through stock options) in an Internet start up company. The entire proceeds of $2 million is held in treasury securities.

John Snow, CFA, of Capital Associates has been forwarded the file of Meznar to suggest an appropriate portfolio. Snow relies heavily on the following forecasts, furnished by the firm, for long term returns for different asset classes. He has already developed three possible portfolios for Meznar.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Asset Class* | *Return* | *Standard Deviation* | *X* | *Y* | *Z* |
| U.S. Stock | 12.0% | 16% | 40% | 30% | 25% |
| Non U.S. Stocks | 14.0 | 24% | 0 | 15 | 25% |
| U.S. Corporate bonds | 7.0 | 10% | 60 | 15 | 0 |
| Municipal Bonds | 5.0 | 8% | 0 | 20 | 25 |
| REIT | 14 | 14% | 0 | 20 | 25 |

What may be the *lowest* value of portfolio Z within the next one year according to value at risk, at 95% probability given the standard deviation of portfolio Z is 22%?

|  |  |
| --- | --- |
| A) | $1,900,000. |
| B) | $1,760,000. |
| C) | $1,499,000. |

Question 9 - #93216

A company has a portfolio composed of several securities with large bid/ask spreads. This is an indication that the portfolio has:

|  |  |
| --- | --- |
| A) | low liquidity risk, but the financial risk is not affected. |
| B) | high liquidity risk, but the financial risk is not affected. |
| C) | high liquidity risk, which means high financial risk. |

Question 10 - #93190

A disadvantage of the Monte Carlo method for calculating value at risk is that:

|  |  |
| --- | --- |
| A) | it is computationally intensive. |
| B) | it requires the normality assumption. |
| C) | all of these choices are correct. |

Question 11 - #92203

Which of the following is NOT a practical benefit of the value at risk framework?

|  |  |
| --- | --- |
| A) | Comparability across asset classes. |
| B) | Hedging. |
| C) | Identification of risk factors. |

Question 12 - #93246

Paula Flox, global risk manager for Green Asset Management, wants to implement a stress testing program. She asks Richard Volk, a junior analyst, to prepare a report on stress testing. When she receives the completed report, Flox is extremely unhappy because it includes only one true conclusion. Which of Volk’s conclusions regarding stress testing is CORRECT? Stress analysis:

|  |  |
| --- | --- |
| A) | is weak when it comes to highlighting effects of inappropriate assumptions. |
| B) | can incorporate delta risks, but fails to account for gamma risks. |
| C) | is not useful for determining the probability of an expected loss. |

Question 13 - #93286

Which of the following is NOT a damaging consequence of not conducting proper stress analysis?

|  |  |
| --- | --- |
| A) | Inability to proactively alter assumptions about correlation structures. |
| B) | Risk of exposure to potential big hits to a portfolio due to second order (gamma) effects of large market moves. |
| C) | Exposure to risk of being taken over. |

Question 14 - #92242

As a risk measurement, value at risk may be *superior* to standard deviation because:

|  |  |
| --- | --- |
| A) | the statistical properties of VAR are more widely understood. |
| B) | VAR may capture market participant's attitudes towards risk more completely. |
| C) | most market participants calculate VAR in the same manner. |

Question 15 - #92774

All of the following are sources of non-financial risk EXCEPT:

|  |  |
| --- | --- |
| A) | regulations. |
| B) | commodity prices. |
| C) | accounting practices. |

Question 16 - #92907

For a firm that uses enterprise risk management, what type of limit should be used to ensure firm diversification?

|  |  |
| --- | --- |
| A) | Risk factor limit. |
| B) | Liquidity limit. |
| C) | Position limit. |

Question 17 - #92416

Which of the following statements describes the *most unique* and practical application of value at risk (VAR) for comparing risky assets? VAR can be used to compare risk:

|  |  |
| --- | --- |
| A) | across asset classes such as bonds and stocks. |
| B) | across bond market sectors. |
| C) | between different style equity portfolios. |

Question 18 - #93200

A portfolio manager determines that his portfolio has an expected return of $20,000 and a standard deviation of $45,000. Given a 95% confidence level, what is the portfolio's VAR?

|  |  |
| --- | --- |
| A) | $54,250. |
| B) | $74,250. |
| C) | $43,500. |

Question 19 - #92127

Which of the following would NOT be a characteristic of an effective enterprise risk management system?

|  |  |
| --- | --- |
| A) | Allowance for all potential combinations of risk factors facing the firm. |
| B) | Allocation of capital on a risk-adjusted basis. |
| C) | Decentralization of risk monitoring and control procedures. |

Question 20 - #91517

All of the following are considered to be strengths of the historical value at risk (VAR) methodology EXCEPT:

|  |  |
| --- | --- |
| A) | minimal data is needed. |
| B) | no assumption regarding a normal returns distribution is required. |
| C) | no variance/covariance matrix is required. |

Question 21 - #92522

Which of the following describes the form of stress testing referred to as factor push analysis?

|  |  |
| --- | --- |
| A) | The impact on the portfolio is measured by examining an input at an extreme level. |
| B) | All factors are examined at levels that inflict the most damage on the portfolio. |
| C) | The effect on the portfolio from simultaneous changes in several factors is examined. |

Question 22 - #92737

Which of the following is a source of financial risk?

|  |  |
| --- | --- |
| A) | Operations. |
| B) | Commodity prices. |
| C) | Taxes. |

Question 23 - #92041

Which of the following would NOT be a characteristic of an effective enterprise risk management system?

|  |  |
| --- | --- |
| A) | Allocating capital according to the returns generated. |
| B) | Using a model that accounts for changing risk factor sensitivities. |
| C) | Identifying all relevant external and internal risk factors. |

Question 24 - #91871

Which of the following statements exhibits a weakness of historical value at risk (VAR)?

|  |  |
| --- | --- |
| A) | The manager of the Matrix Small Cap Index Fund calculates a historical daily VAR at the 95% confidence level of $4,080 using Russell 2000 Index returns from 1987-2001. The manager of the Smith Small Cap Index Fund, which is the same size as the Matrix Small Cap Index Fund, calculates a historical daily VAR at the 95% confidence level of $4,210 using Russell 2000 Index returns from 1990-2001. |
| B) | The manager of the Quality Value Fund has a normal distribution of returns and calculates a historical daily VAR of $300. The manager of the Pinnacle Fund has a negatively skewed return distribution and calculates a daily VAR of $360. |
| C) | In order to account for instability in the standard deviation of fund returns, the manager of the Spencer Fund uses a decay factor in her VAR calculation. |

Question 25 - #92118

When describing the risk exposures that an analyst should examine as part of an enterprise risk management system, what terms describe the risks pertaining to the factors that directly affect firm or portfolio values and the risks associated with external capital markets?

|  |  |  |
| --- | --- | --- |
|  | Firm/Portfolio Value | External Capital Market |

|  |  |  |  |
| --- | --- | --- | --- |
| A) |  | Market risk | Factor risk |
| B) |  | Systematic risk | Financial risk |
| C) |  | Market risk | Financial risk |

Question 26 - #91536

Which of the following factors is the common weakness in historical and Monte Carlo Simulation approach to VAR estimation?

|  |  |
| --- | --- |
| A) | For some assets you may face model risk. |
| B) | Both assume that historical variance-covariance matrix is stable. |
| C) | A lot of data is needed for the time period of interest. |

Question 27 - #92547

Which of the following is NOT a use of stress testing?

|  |  |
| --- | --- |
| A) | Stress testing complements value at risk (VAR). |
| B) | It enables the risk manager to eliminate all risk from a portfolio. |
| C) | It can be used for capital allocation across business units. |

Question 28 - #93192

Which value at risk methodology is *most* subject to model risk?

|  |  |
| --- | --- |
| A) | Monte Carlo simulation. |
| B) | Parametric. |
| C) | Variance/covariance. |

Question 29 - #92451

An investor hires a portfolio manager and stipulates a maximum value at risk for the portfolio. This is an example of the use of the value at risk framework to:

|  |  |
| --- | --- |
| A) | measure performance. |
| B) | build portfolios. |
| C) | set risk limits. |

Question 30 - #92817

All of the following are sources of non-financial risk EXCEPT:

|  |  |
| --- | --- |
| A) | settlement risk. |
| B) | credit risk. |
| C) | legal risk. |

Question 31 - #92025

Value at risk (VAR) is a benchmark associated with a given probability. The actual loss:

|  |  |
| --- | --- |
| A) | cannot exceed this amount. |
| B) | is expected to be the average of the expected return of the portfolio and VAR. |
| C) | may be much greater. |

Question 32 - #93214

Risk management has evolved into:

|  |  |
| --- | --- |
| A) | a series of small sets of independent activities. |
| B) | a broad set of interrelated activities. |
| C) | a government mandated set of standards. |

Question 33 - #92716

Suppose that in a currency swap, counterparty A makes a payment to counterparty B who, unbeknownst to A, defaults on the payment that is due at the same time to A. This is called:

|  |  |
| --- | --- |
| A) | accounting risk. |
| B) | settlement risk. |
| C) | liquidity risk. |

Question 34 - #93206

Which of the following describes the *best* way to resolve the differences between the stress testing approach to computing capital requirements and the value at risk (VAR) approach?

|  |  |
| --- | --- |
| A) | Ignore the VAR approach since it ignores extreme events. |
| B) | Use both approaches and then use the larger of the two capital requirements. |
| C) | Integrate the two approaches by using an optimization algorithm. |

Question 35 - #92945

Which of the following is a source of market risk?

|  |  |
| --- | --- |
| A) | Equity prices. |
| B) | Taxes. |
| C) | Operations. |

Question 36 - #92515

John Nicholson is in charge of the risk management committee for Beta Portfolio Managers. Beta has a variety of bonds in their portfolio of differing durations, call features, and coupons. He is worried about the impact on the firm’s bond portfolio from simultaneous changes in interest rates, the shape of the yield curve, and interest rate volatilities. Which of the following forms of stress testing is he *most likely* to utilize?

|  |  |
| --- | --- |
| A) | Factor push analysis. |
| B) | Worst-case scenario analysis. |
| C) | Stylized scenarios. |

Question 37 - #93188

Assuming that adequate daily data is available, a criticism of the Monte Carlo value at risk (VAR) methodology, *but not* the other VAR methodologies is that it:

|  |  |
| --- | --- |
| A) | requires a normal distribution of returns. |
| B) | is relatively inflexible. |
| C) | is exposed to model risk. |

Question 38 - #92763

Shilton Capital, owned by flamboyant billionaire Travis Shilton, has a reputation for managing risk well. The firm operates several hedge funds and partnerships, generating huge returns with risky strategies that always seem to pay off. Shilton hires the most creative portfolio managers he can find, then jets off to Switzerland or Brazil to be seen in the presence of the world's glitziest people. Paul Miller, as staid as Shilton is flighty, handles the day-to-day operations at Shilton Capital.

The bulk of Shilton Capital's assets are invested in five portfolio strategies: a hedge fund that seeks to profit from currency fluctuations, a market-neutral hedge fund, a real estate partnership, an enhanced index hedge fund, and a partnership that buys bonds of companies in financial distress. All five strategies have generated excellent returns over the last year.

The following discusses one hour at Shilton Capital:

Charlene Hatchett manages a hedge fund focusing on foreign currencies. She buys currencies she considers undervalued, mostly those in countries whose economic growth potential is not reflected in the global market, and sells overvalued currencies in forward contracts in an effort to cash in on the fluctuations. During her first hour at work, Hatchett has been buying up the drang, a currency used in Extralatia, a small African country with a booming economy and an increasingly talented and educated workforce she believes is not acknowledged by the global business community. At 5 p.m. Extralatian time, or 10 a.m. Eastern time, a military coup in Extralatia's neighboring country, Warmongaria, sends a flood of refugees running toward the Extralatian border. The new military governor of Warmongaria immediately threatens to invade Extralatia's capital if the country allows in the refugees, many of whom are of Extralatian descent. With a few quick phone calls, Hatchett learns that two multinationals near to announcing large development projects in Extralatia are rethinking their plans because of the unrest. The political situation in Extralatia is dodgy at the best of times, and Hatchett is concerned that recent developments will wreak havoc with the currency.

Mitchell Stone runs a market-neutral sector hedge fund that takes long positions in securities Stone considers undervalued and short offsetting positions in expensive stocks in a couple of key industry groups within the industrial sector. Stone expects the stock market to decline, so he wants to seek alpha through stock selection and wash out market returns. Most of the long positions represent companies with increasing market share and strong finances, while the short positions generally represent companies with weak balance sheets, which have been punished by a choppy, volatile market in recent weeks. Today, the market opens up strong on higher-than-expected growth of the gross domestic product and optimistic news about industrial activity from the Federal Reserve. The entire industrial sector rallies, with the weakest companies -- those most heavily punished in recent weeks -- leading the way. Stone's long positions are doing well, but his short positions are getting killed, more than offsetting gains in the long positions.

Carter Wainwright's real-estate partnership owns a mix of industrial and retail properties across the Eastern Seaboard. Vacancy is low, and rental rates are rising. But at 10 a.m., Wainwright learns that the state legislature just passed a new inventory tax that will make it more expensive to store goods in Massachusetts. Several large industrial concerns immediately start trying to back out of contracts to use a half-dozen huge, newly constructed warehouses in Boston, properties expected to provide the bulk of the partnership's revenue growth over the next year.

Lisa Cline's partnership owns bonds issued by a number of troubled industrial and consumer companies, all of which pay yields well above the market average. At 10 a.m., Canton Metals files for bankruptcy, and Cline's preliminary analysis suggests the company will default on its bonds, which represent about 10 percent of the partnership's holdings.

Max Campbell is having a fine day. He attempts to beat market returns by using leverage during periods when he expects the market to rise, and using futures contracts to hedge market risk during periods when he expects the market to fall. He targets a return of 150 percent of the index in up markets. Campbell is bullish at the moment and highly leveraged, and the solid economic news has sent the market soaring.

Hatchett, Stone, Wainwright, and Cline arrive at Miller's door at roughly the same time, panicking because they do not know how to address the risks. He meets with each one and recommends the following, in turn:

To Hatchett: Since trading in Extralatian currency has been temporarily suspended, she should buy the currencies of neighboring countries in the region in an effort to hedge her risk.

To Stone: He should sell some of his long positions and use the proceeds to cover the worst of the short positions.

To Wainwright: He should do nothing.

To Cline: She should liquidate her Canton bond position immediately for whatever price she can get before demand dries up altogether.

Part 1)  
In attempting to fix the problems in Shilton Capital's risk-management system, which issue warrants the *least* attention?

|  |  |
| --- | --- |
| A) | Inadequate stress testing. |
| B) | Failure to hedge away risks. |
| C) | Shilton's absentee ownership. |

Part 2)  
All of the risky events discussed above could recur. Current mitigation efforts aside, going forward, which analyst's risk would be *most* difficult for Shilton Capital to hedge away?

|  |  |
| --- | --- |
| A) | Cline's. |
| B) | Hatchett's. |
| C) | Wainwright's. |

Part 3)  
To *best* prepare for events like those faced by Hatchett, Shilton Capital should have:

|  |  |
| --- | --- |
| A) | set up a currency swap. |
| B) | addressed sovereign risk through credit derivatives. |
| C) | calculated an incremental VAR. |

Part 4)  
Which of Miller's proposed solutions makes the *least* sense? Miller's instructions for:

|  |  |
| --- | --- |
| A) | Hatchett. |
| B) | Wainwright. |
| C) | Stone. |

Part 5)  
Stone isn't happy with Miller's advice on how to manage the increased risk of his portfolio, and he has several ideas of his own regarding how to manage such risks in the future. Which of Stone's proposed solutions would be *least* effective?

|  |  |
| --- | --- |
| A) | Doing nothing, because the company's risk is already partially hedged. |
| B) | Establishing notional position limits for each security in the portfolio. |
| C) | Purchasing out-of-the-money call options on the shorted stocks. |

Part 6)  
Wainwright's current problems are *best* explained as:

|  |  |
| --- | --- |
| A) | model risk. |
| B) | active risk. |
| C) | sovereign risk. |

Question 39 - #93210

Consider a portfolio that has the following characteristics:

An expected return of 12%.

$1,000,000 portfolio value.

Annual standard deviation equal to 6%.

What is the value at risk (VAR) for the portfolio at the 99% probability level?

|  |  |
| --- | --- |
| A) | -$19,800. |
| B) | $980,200. |
| C) | 99% confident the maximum loss for any one year is $1,800. |

Question 40 - #93242

Which of the following is the *most difficult* step in establishing an enterprise-wide risk management (ERM) system for a large firm?

|  |  |
| --- | --- |
| A) | Establishing a monitoring and evaluation system. |
| B) | Developing an analytics system. |
| C) | Creating a centralized data warehousing system. |

Question 41 - #92050

The LDC Bank specializes in foreign exchange transactions and lending to emerging market countries. They have provided a loan to the country of Tinia so that Tinia can install a water irrigation system in the interior of the country. The LDC Bank is very careful with their lending practices, calculating the probability of a country’s default through the use of simulation. They have also entered into a currency swap that allows them to receive Mexican pesos in exchange for paying U.S. dollars. Which of the following risk is NOT *explicitly* mentioned in these series of transactions by the LDC Bank?

|  |  |
| --- | --- |
| A) | Regulatory risk. |
| B) | Herstatt risk. |
| C) | Model risk. |

Question 42 - #91805

The method for calculating value at risk that uses the fewest assumed inputs is the:

|  |  |
| --- | --- |
| A) | Monte Carlo method. |
| B) | historical method. |
| C) | delta-normal method. |

Question 43 - #93227

Yoshi Chu and Ryan Dobson have been tasked with creating an enterprise-wide risk management (ERM) system for Reliant Financial Services. After creating a centralized data warehousing facility, their next step is creating a useful analytics system. Which of the following features would be *least likely* included in their system?

|  |  |
| --- | --- |
| A) | Legal risk analysis. |
| B) | Derivative valuation models. |
| C) | Monte Carlo simulations. |

Question 44 - #93191

All of the following are advantages in Monte Carlo simulation approach to VAR estimation EXCEPT:

|  |  |
| --- | --- |
| A) | no assumption needed regarding linearity. |
| B) | no model risk. |
| C) | no assumption needed regarding normality. |

Question 45 - #91528

A subsidiary of a parent company that is capitalized in a way that results in a high credit rating, with the objective of allowing the subsidiary to engage in activities where a high credit rating is an advantage would be called:

|  |  |
| --- | --- |
| A) | collateralization. |
| B) | a special purpose vehicle. |
| C) | a collateral mortgage obligation. |

Question 46 - #93201

Which methodology for computing value at risk (VAR) relies on the assumption of normally distributed returns?

|  |  |
| --- | --- |
| A) | Binomial VAR. |
| B) | Variance/Covariance VAR. |
| C) | Historical VAR. |

Question 47 - #92863

Which of the following is a type of market risk?

|  |  |
| --- | --- |
| A) | Operations risk. |
| B) | Accounting risk. |
| C) | Interest rate risk. |

Question 48 - #93198

Sheila Myers, CFA, has recently been promoted from analyst to Senior Vice President of Risk Management at Treetop Investment Inc. Myers recently attained her CFA charter. While studying for the exams, she became very interested in risk measurement and management. Previously, the focus of her career was on fundamental equity analysis.

Myers recently attended a conference on risk measurement techniques including the concept of value at risk (VAR). She learned that many managers and finance professionals are using VAR as a measure of asset, project, and portfolio risk. Rick Bishop, the key presenter at the conference on topics related to VAR, defined VAR as “the minimum amount of money that a firm could expect to lose with a given probability over a specific period of time.” One participant asked “I thought VAR was the maximum loss the firm could expect. Am I incorrect in this assumption?” Bishop replied that in its most basic form, VAR is defined as the largest potential portfolio loss over a given period of time with a certain level of probability. He went on to explain that a portfolio manager might compute the value at risk for his portfolio over the next 3 months at $5 million with 1 percent probability. What this means is that over the next 3 months, there is a 1 percent probability that the portfolio will lose $5 million or more. Alternatively, it can be said that over the next three months there is a 99 percent chance that the most the portfolio will lose is $5 million.

Sarah George asked Bishop “Is VAR comparable across various asset classes managed by the firm?” A second participant, Ben Cooper, says that he has heard that VAR is “relatively incomparable across managers”.

Myers attended a session on the use of VAR to evaluate credit risk. The session leader, Justin Banks, said that while it is possible to use VAR in credit risk analysis, the interpretation is somewhat different. He said, “Credit risk increases as the value of positions held increases.” Myers then replied “I see what you’re implying. We must thus focus on the lower tail of the distributions of gains on positions held when using VAR to evaluate credit risk.”

Blake Smith held a panel session on stress testing. He indicated that the best use of stress testing in VAR analysis is to “vary the inputs to the VAR estimation process a little bit and analyze the impact of this movement on the computed VAR.” Georgia Burns said that it is “stress testing the return generating process used to develop the scenarios or paths in Monte Carlo analysis”.

An entire session was devoted to estimating VAR. There are several methods that may be used including the historical method, the Monte Carlo simulation method, and the variance-covariance method. Session panel members were asked to discuss the advantages and disadvantages of each method of estimation. Jane Blatt said “the key disadvantage of the historical method is that we have to assume normally distributed returns.” Jim McAdams said “a key advantage of the Monte Carlo simulation method is that it can accommodate the required assumptions for complex relationships.” Finally, Beth Berry said “the key disadvantage of the variance-covariance method is that it assumes that past performance is representative of what can occur in the future.”

After the seminar, Myers was intrigued by the power of VAR but was apprehensive about actually adopting VAR as a risk measurement tool. She asked Bishop to identify the most fundamental problem with estimating VAR.

Part 1)  
Bishop, in response to George’s question regarding comparability across asset classes, is *most likely* to respond that VAR:

|  |  |
| --- | --- |
| A) | does not measure risk comparably across asset classes. |
| B) | measures risk comparably across asset classes that have normal distributions (i.e., there are no embedded options). |
| C) | measures risk comparably across asset classes. |

Part 2)  
In response to Cooper’s statement regarding VAR’s incomparability across managers, Myers is *most likely* to:

|  |  |
| --- | --- |
| A) | agree and add that it is because of the complexity of the calculations involved. |
| B) | agree and add that this is due to its inherent model risk. |
| C) | disagree and add that the characteristics of a competitor's portfolio can be estimated through VAR modeling techniques. |

Part 3)  
With respect to the use of stress testing in VAR analysis, Burns and Smith are, respectively:

|  |  |
| --- | --- |
| A) | incorrect; correct. |
| B) | incorrect; incorrect. |
| C) | correct; incorrect. |

Part 4)  
In response to Myers’ question about the most fundamental problem associated with estimating VAR, Bishop is *most likely* to reply that the main problem is:

|  |  |
| --- | --- |
| A) | the lack of available data to compute VAR. |
| B) | the inability to accurately derive the "true" probability distribution for the asset or portfolio under evaluation. |
| C) | that VAR calculations depend on symmetrical payout profiles. |

Part 5)  
Regarding credit risk and VAR, Banks and Myers are, respectively:

|  |  |
| --- | --- |
| A) | incorrect; correct. |
| B) | correct; incorrect. |
| C) | correct; correct. |

Part 6)  
McAdams, Blatt and Berry are, respectively:

|  |  |
| --- | --- |
| A) | correct; correct; incorrect. |
| B) | correct; incorrect; incorrect. |
| C) | incorrect; correct; incorrect. |

Question 49 - #92740

All of the following are types of financial risk EXCEPT:

|  |  |
| --- | --- |
| A) | accounting risk. |
| B) | credit risk. |
| C) | liquidity risk. |

Question 50 - #92939

For a firm that uses enterprise risk management, how should a deviation from a risk budget be dealt with?

|  |  |
| --- | --- |
| A) | The deviation should be reported immediately to upper management. |
| B) | Each portfolio manager should have the discretion to determine the correct response. |
| C) | The manager should not hedge the position that caused the violation of the risk budget. |

Question 51 - #93223

Each of the following is a step in the risk management process EXCEPT:

|  |  |
| --- | --- |
| A) | setting a target level of risk. |
| B) | identifying the current level of risk. |
| C) | filing taxes. |

Question 52 - #92479

The accuracy of a value at risk (VAR) measure:

|  |  |
| --- | --- |
| A) | can only be ascertained after the fact. |
| B) | is included in the statistic. |
| C) | is one minus the probability level. |

Question 53 - #93197

Which of the methods for calculating Value At Risk (VAR) do asset managers *most commonly* use?

|  |  |
| --- | --- |
| A) | Variance/covariance. |
| B) | Historical. |
| C) | Monte Carlo simulation. |

Question 54 - #93240

Peter Weatherford and Paul Washington are discussing the characteristics of an effective enterprise risk management system for their firm, Supra Portfolio Managers. Weatherford states that Supra should have a committee in place to respond to violations of risk management guidelines. Washington adds that each asset Supra holds must be investigated thoroughly in isolation so that management can better understand the asset’s risk and return characteristics. Which of the following regarding Weatherford’s and Washington’s statements is CORRECT?

|  |  |
| --- | --- |
| A) | Weatherford is incorrect; Washington is incorrect. |
| B) | Weatherford is correct; Washington is incorrect. |
| C) | Weatherford is correct; Washington is correct. |

Question 55 - #93196

Which of the following risk measures does NOT assume a normal distribution of returns?

|  |  |
| --- | --- |
| A) | Standard Deviation. |
| B) | RoMAD. |
| C) | Sortino ratio. |

Question 56 - #92646

Gregory Chambers is interested in estimating the daily VAR (with 99% probability) of bank's fixed income portfolio, currently valued at $30 million. The portfolio has the following returns over the past 200 days (ranked from high to low).

1.9%, 1.87%, 1.85%, 1.79%......-1.78%, -1.81%, -1.84%, -1.87%, -1.91%

What will be the VAR estimate using the historical method?

|  |  |
| --- | --- |
| A) | $570,000. |
| B) | $978,000. |
| C) | $561,000. |

Question 57 - #93221

Increasing the relative weight on OTC derivatives relative to the weight on exchange-traded derivatives in a portfolio will:

|  |  |
| --- | --- |
| A) | have no affect on credit risk or financial risk. |
| B) | increase credit risk but decrease financial risk. |
| C) | increase credit risk and financial risk. |

Question 58 - #93202

Which of the following *most accurately* describes the relationship between computing internal capital requirements using a stress testing approach versus a value at risk (VAR) capital strength approach? Stress testing approaches:

|  |  |
| --- | --- |
| A) | are substitutes for VAR approaches since they better measure the entire spectrum of potential outcomes. |
| B) | complement VAR approaches since they account for scenarios that may not be properly considered in VAR approaches. |
| C) | can never be combined with VAR approaches because they are based on different probability distributions. |

Question 59 - #92768

Prior to expiration, the long position in a European option would have:

|  |  |
| --- | --- |
| A) | only potential credit risk. |
| B) | zero credit risk. |
| C) | more current credit risk than potential credit risk. |

Question 60 - #91953

The minimum amount of money that one could expect to lose with a given probability over a specific period of time is the definition of:

|  |  |
| --- | --- |
| A) | value at risk (VAR). |
| B) | delta. |
| C) | the hedge ratio. |

Question 61 - #92570

Frank Meinrod is in charge of the risk management committee for Alpha Portfolio Managers. Recently, the value of one of the company’s bond positions has decreased due to a potential steep rate hike by the Federal Reserve. Meinrod believes that the rate hike will be moderate and that the decline in the bond portfolio value is temporary. Which of the following is the *best* action for Meinrod to take? Meinrod should advise the risk management committee that they should:

|  |  |
| --- | --- |
| A) | hedge the position by selling interest rate futures. |
| B) | hedge the position by buying interest rate futures. |
| C) | take no action at all. |

Question 62 - #92837

Which of the following is the most widely accepted definition of market risk?

|  |  |
| --- | --- |
| A) | Duration. |
| B) | The potential change of value in an asset or derivative in response to a change in some basic source of uncertainty. |
| C) | The potential loss from investing in stocks and bonds. |

Question 63 - #91524

When two counterparties have obligations to each other, the process that potentially reduces the credit risk of one counterparty to zero and lowers the credit risk of the other is known as:

|  |  |
| --- | --- |
| A) | marking to market. |
| B) | netting. |
| C) | collateralizing. |

Question 64 - #93199

Which of the common methods of computing value at risk relies on the assumption of normality?

|  |  |
| --- | --- |
| A) | Monte Carlo simulation. |
| B) | Variance/covariance. |
| C) | Historical. |

Question 65 - #92406

Regarding the practical application of value at risk (VAR) for portfolio managers, which of the following statements is *least* accurate? VAR can:

|  |  |
| --- | --- |
| A) | *not* be used to set risk limits relative to a benchmark. |
| B) | be used to set risk limits on an absolute level. |
| C) | be used to identify the macroeconomic factors that have the greatest impact on overall portfolio performance. |

Question 66 - #92487

The long position of a forward contract bears the credit risk if the market price of the underlying is:

|  |  |
| --- | --- |
| A) | less than the exercise price. |
| B) | greater than the exercise price. |
| C) | equal to the exercise price. |

Question 67 - #91529

Using the following information from a firm that uses enterprise risk management, which portfolio manager has superior performance and why?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | Manager A | Manager B |
| Capital | | | $150,000,000 | $590,000,000 |
| VAR | | | $7,500,000 | $21,000,000 |
| Profit | | | $2,000,000 | $7,000,000 |
| A) | Manager B because their return is higher in a risk budgeting context. | | | |
| B) | Manager A because they had a higher return on capital. | | | |
| C) | Manager A because they used less VAR. | | | |

Question 68 - #93244

Which of the following is the *final* step in the risk management process?

|  |  |
| --- | --- |
| A) | Monitoring the process and taking any necessary corrective actions. |
| B) | Identifying and measuring specific risk exposures. |
| C) | Reporting risk exposures (deemed appropriate) to stakeholders. |

Question 69 - #92520

Which of the following will have the least amount of credit risk? A(n):

|  |  |
| --- | --- |
| A) | either position in a plain-vanilla currency swap. |
| B) | pay-fixed position in a plain-vanilla interest rate swap. |
| C) | short option position. |

Question 70 - #92531

Which of the following is NOT a disadvantage of using stress testing? Stress testing:

|  |  |
| --- | --- |
| A) | reflects only normal circumstances. |
| B) | reflects the analyst’s intentional and unintentional misspecification of the model. |
| C) | fails to include the simultaneous adverse movements of risk factors. |

Question 71 - #93233

Risk management is best addressed:

|  |  |
| --- | --- |
| A) | monthly. |
| B) | quarterly. |
| C) | daily. |

Question 72 - #92405

Which of the following is NOT an appropriate application of VAR for portfolio managers?

|  |  |
| --- | --- |
| A) | Setting portfolio risk limits. |
| B) | Peer group risk evaluation. |
| C) | Identification of key portfolio risks. |

Question 73 - #92582

A property that is usually necessary for a risk source to be considered financial is that it involves:

|  |  |
| --- | --- |
| A) | money only. |
| B) | a transaction with a party outside the firm. |
| C) | money and interest rates only. |

Question 74 - #91769

The method for calculating value at risk that is the simplest and rests heavily on means and variances is the:

|  |  |
| --- | --- |
| A) | historical method. |
| B) | Monte Carlo method. |
| C) | delta-normal method. |

Question 75 - #91811

The practice that imposes current credit risk on a periodic basis to lower potential credit risk is called:

|  |  |
| --- | --- |
| A) | marking to market. |
| B) | netting. |
| C) | potentiality. |

Question 76 - #92157

BigBank engages in foreign exchange transactions. They have just provided a forward contract to a major multinational corporation that allows the corporation to sell Swiss francs in 90 days. They have also entered into a currency swap that allows them to receive Japanese yen in exchange for paying U.S. dollars. Furthermore, they are in the process of selling a large position in Canadian dollars in the spot market. Which of the following risks is NOT *explicitly* mentioned in these series of transactions by BigBank?

|  |  |
| --- | --- |
| A) | Operations risk. |
| B) | Herstatt risk. |
| C) | Liquidity risk. |

Question 77 - #91531

In the Sortino ratio, the excess return is divided by the:

|  |  |
| --- | --- |
| A) | maximum drawdown. |
| B) | standard deviation. |
| C) | standard deviation using only the returns below a minimum level |

Question 78 - #92201

Value at risk (VAR) is attractive because it:

|  |  |
| --- | --- |
| A) | is a single and easily understood measure. |
| B) | measures the maximum amount that can be lost. |
| C) | has a well-defined method for calculation. |

Question 79 - #92503

Which of the following statements *best* describes the uses of stress analysis?

|  |  |
| --- | --- |
| A) | Scenario analysis, which is a special case of stress analysis, suffers from limitations on implementing a consistent and manageable approach. |
| B) | Stress analysis has several advantages over a value at risk (VAR) only approach that includes: highlighting inappropriate assumptions, hidden vulnerabilities, and the ability to be able to forecast probability of rare but damaging events. |
| C) | Stress analysis can be used to enhance VAR analysis by focusing on the extent of loss in an extreme event. |

Question 80 - #91522

All of the following are considered to be weaknesses of the variance/covariance value at risk (VAR) methodology EXCEPT:

|  |  |
| --- | --- |
| A) | the variance/covariance matrix may not be stable over time. |
| B) | the VAR computation becomes complex as portfolio complexity increases. |
| C) | market data necessary to compute VAR is often not available. |

Question 81 - #93203

Stress testing approaches are not constrained by many of the constraints associated with the traditional distribution based value at risk (VAR) approaches. Which of the following is an example of a constraint associated with the traditional VAR approach but NOT the stress testing approach? The traditional VAR approach:

|  |  |
| --- | --- |
| A) | places too high a probability on extreme events. |
| B) | ignores extreme events. |
| C) | places too small a probability on extreme events. |

Question 82 - #92090

John Dumas is in charge of $100 million of equity portfolio. He expects a return of 10% with a standard deviation of 8%. What will be the minimum value of portfolio at 95% probability. Z scores from standard normal distribution are:

10% = 1.28

5% = 1.65

2.5% = 1.96

1% = 2.33

|  |  |
| --- | --- |
| A) | 96.80 million. |
| B) | 92.8 million. |
| C) | 98.4 million. |

Question 83 - #92601

Tom Andrews is in charge of the risk management committee for Sigma Portfolio Managers. Interest rates have recently increased and the firm’s model has predicted a substantial decline in the value of the firm’s bond portfolio. However, the actual value of the bond portfolio has not decreased as much as expected because the firm has large holdings of callable bonds. Which of the following is the *best* action for Andrews to take? Andrews should advise the risk management committee that they should:

|  |  |
| --- | --- |
| A) | take no action at all. |
| B) | revise the model in light of its shortcomings. |
| C) | hedge the position by buying a series of interest rate call options (caps). |

Question 84 - #93224

The final step in the implementation phase of the risk management process is to:

|  |  |
| --- | --- |
| A) | identify and price the appropriate tools for achieving the objectives. |
| B) | conduct a Monte Carlo simulation. |
| C) | determine the optimal time to wait for addressing risk again. |

Question 85 - #91861

If the one-day value at risk of a portfolio is $50,000 at a 95 percent probability level, this means that we should expect that in one day out of:

|  |  |
| --- | --- |
| A) | 20 days, the portfolio will decline by $50,000 or more. |
| B) | 20 days, the portfolio will decline by $50,000 or less. |
| C) | 95 days, the portfolio will lose $50,000. |