# Question #1 of 16

Which of the following risk measures are most likely to be used by a hedge fund?

**A)** Maximum drawdown.

Question ID: 1210815

**B)** Surplus at risk.

**C)** Glidepath.

#### **Explanation**

Maximum drawdown reflects the performance during the worst performing period (month or quarter) and is commonly used as a risk metric by hedge funds. Surplus at risk is used by pension plans. Glidepath is a tool used by pension plan to manage plan surplus/deficit and charts the planned move of the fund position from its current state to the target state.

(Study Session 16, Module 45.4, LOS 45.j)

#### **Related Material**

SchweserNotes - Book 5

# Question #2 of 16

Question ID: 1210813

Which of the following is a limitation of scenario analysis?

A) Scenario analysis does not account for "fat tail" problem of the return distribution.



**B)** The relationship between portfolio value and the risk factors used may not be static.



**C)** Scenario analysis does not provide the probability of a specific scenario occurring.



## **Explanation**

o value obobo While scenario analysis can be used to measure the impact of a scenario, it can't provide arise. Assumption of static relationship between individual risk factors and portfolio value is a limitation of sensitivity analysis. the probability of the scenario actually occurring. Since scenario analysis does not assume

(Study Session 16, Module 45.3, LOS 45.i)

#### **Related Material**

SchweserNotes - Book 5

# Question #3 of 16

Marginal Var is *least likely* to be

**A)** change in VaR due to very small change in asset positon.

Question ID: 1210809

**B)** conceptually similar to incremental VaR

**C)** change in VaR due to change in probability.

## **Explanation**

Marginal Var, conceptually similar to incremental VaR, captures the change in VaR for very small changes in asset position.

(Study Session 16, Module 45.2, LOS 45.e)

#### **Related Material**

SchweserNotes - Book 5

# Question #4 of 16

Question ID: 1210806

Delphia fund is a €100 million portfolio of euro zone equities. The expected daily return and standard deviation are 0.116% and 0.38% respectively. The 5% daily VaR is €511,000. Assuming 21 trading days per month, The 5% monthly VaR is *closest* to:

**A)** €829,446

**B)** €3,801,000

**C)** €435,000

#### **Explanation**

Monthly return =  $0.00116 \times 21 = 0.02436$ .

Monthly standard deviation =  $0.0038 \times (21)^{0.5} = 0.0174$ 

5% Monthly VaR = [Expected monthly return (1.65 x Monthly standard deviation)] × Portfolio value = [0.02436 - (1.65 x 0.0174)] x 100million = €435,000 ession 16, Module 45.1, LOS 45.c)

Material

rNotes - Book 5 5% Monthly VaR = [Expected monthly return (1.65 x Monthly standard

(Study Session 16, Module 45.1, LOS 45.c)

#### **Related Material**

SchweserNotes - Book 5

# Question #5 of 16

A portfolio has a 5% monthly VaR of \$2.5 million dollar. Which of the following is most accurate?

**A)** There is a 5% chance of loss in portfolio value of at least \$2.5 million in a month.

Question ID: 1210802

**B)** There is a 95% chance of losing \$2.5 million in 5% of the months

**C)** There is a 5% chance of losing \$2.5 million every month.

## **Explanation**

5% monthly VaR indicates the 5% likelihood of a *minimum* loss in a month.

(Study Session 16, Module 45.1, LOS 45.a)

#### **Related Material**

SchweserNotes - Book 5

Question #6 of 16

Question ID: 1210816

Which of the following is *most likely* an example of a stop loss limit?

**A)** Liquidate the portfolio if the portfolio value falls below \$100 million.

**B)** Maximum daily VaR of \$1.5 million.

**C)** Maximum tracking error of 3%.

### **Explanation**

Stop loss limits specify liquidation of a portfolio or a reduction in its size if a loss of a specific magnitude occurs. Maximum daily VaR and tracking errors are examples of risk budgets.

(Study Session 16, Module 45.5, LOS 45.k)

#### **Related Material**

SchweserNotes - Book 5

Question #7 of 16

Question ID: 1210803 Assuming that the returns distribution of a portfolio is normal, using the parametric method of estimation of VaR needs which of the following inputs:

A) mean and standard deviation.	
<b>B)</b> mean, standard deviation, and kurtosis.	8
<b>C)</b> mean, standard deviation and size of the lookback period.	8
Explanation	
lf we assume that the returns distribution is normal, under the parar estimation of VaR, we only need the mean and standard deviation of	
(Study Session 16, Module 45.1, LOS 45.b)	
Related Material	
SchweserNotes - Book 5	
Question #8 of 16	Question ID: 1210808
Conditional VaR is <i>most accurately</i> measured as:	
<b>A)</b> Average VaR in the tails of the value distribution.	8
<b>B)</b> Average VaR given that losses to the extent of VaR has occurred	
<b>C)</b> Average VaR in the tails of the return distribution.	×
Explanation	
Conditional VaR is the average loss conditional on exceeding the VaR average Var in the <i>left</i> tail of the return distribution.	cutoff. It is the
(Study Session 16, Module 45.2, LOS 45.e)	
Related Material  SchweserNotes - Book 5	
Question #9 of 16	Question ID: 1210814
Which of the following risk measures are <i>most likely</i> to be used by a tr manager?	Question ID: 1210814 aditional asset
A) Surplus at risk	20 to 8
<b>B)</b> Active share.	118 68 8
C) Maximum drawdown	Nation N
Explanation	18,50 k
	7)

- A) Surplus at risk
- **B)** Active share.
- **C)** Maximum drawdown

# **Explanation**

Traditional active managers are concerned about underperforming against their benchmark and hence use active share as a relative measure of risk. Surplus at risk is used by pension plans and maximum drawdown is most commonly used by hedge funds.

(Study Session 16, Module 45.4, LOS 45.j)

#### **Related Material**

SchweserNotes - Book 5

# Question #10 of 16

A firms economic capital is *most accurately* described as:

- **A)** capital needed to overcome severe losses in the business.
- **B)** fair value of plan assets less fair value of liabilities.
- **C)** Assets minus VaR.

## **Explanation**

Economic capital is the capital needed for a firm to survive if severe losses are experienced based on the risk the business is exposed to.

(Study Session 16, Module 45.5, LOS 45.1)

#### **Related Material**

SchweserNotes - Book 5

## Question #11 of 16

Sophia fund is a €200 million portfolio of euro zone equities. The expected daily return and standard deviation are 0.179% and 0.22% respectively. The 5% daily VaR is *closest* to:

- **A)** €368,000
- **B)** €37,400,000
- **C)** €82,000

#### **Explanation**

5% daily VaR = [0.00179 - (1.65 x 0.0022)] x 200million = €368,000

(Study Session 16, Module 45.1, LOS 45.c)

## **Related Material**

SchweserNotes - Book 5

Question ID: 1210817

Question ID: 1210805

# Question #12 of 16

Which of the following approaches to conducting scenario analysis on a portfolio of stock options is *most accurate*?

**A)** Value the portfolio based on the parameters identified in the scenario.

Question ID: 1210812

**B)** Evaluate the impact on the portfolio owing to changes in delta.

X

**C)** Evaluate the impact on the portfolio owning to changes in volatility.

X

# **Explanation**

Scenario analysis involves fully repricing the asset based on the values of the risk factors in the identified scenario. Evaluating the effect on portfolio value due to changes in a single risk factor is done for sensitivity analysis and not scenario analysis.

(Study Session 16, Module 45.3, LOS 45.h)

#### **Related Material**

SchweserNotes - Book 5

# Question #13 of 16

Question ID: 1210811

With regards to convexity and gamma, which of the following statements are *most accurate?* 

**A)** Both are second order effects value arising from changes in underlying risk factors to the change in value of the asset.

✓

**B)** Convexity is a first order effect while gamma is a second order effect arising from changes in underlying risk factors to the change in value of the asset.

X

**C)** Convexity is a second order effect while gamma is a first order effect arising from changes in underlying risk factors to the change in value of the asset.

X

## **Explanation**

Convexity is the second order effect of change in interest rate on bond prices while gamma is the second order effect of change in stock price on option prices.

(Study Session 16, Module 45.2, LOS 45.g)

#### **Related Material**

SchweserNotes - Book 5

# Question #14 of 16

Which one of the following is NOT a limitation of VaR?

**A)** VaR based risk limits may be inappropriate in trending markets



Question ID: 1210807

**B)** VaR computed during periods of unusually low volatility may underestimate actual VaR.

X

**C)** Incorporates only right tail risk.



## **Explanation**

VaR computations only incorporate left tail risk (and ignores the returns in the right tail). VaR computed using too low of estimates of volatility will be too low and underestimates the downside risk based on true estimates of volatility. In downward trending markets, consistent negative returns may not breach daily or weekly VaR but nonetheless can lead to significant accumulation of losses.

(Study Session 16, Module 45.2, LOS 45.d)

#### **Related Material**

SchweserNotes - Book 5

# Question #15 of 16

Question ID: 1210804

Which of the following is most accurately a limitation of the historical simulation method?

**A)** Estimates of mean and standard deviation may be inaccurate.



**B)** The behavior of returns over the lookback period may not accurately capture the future behavior.



**C)** The size of the lookback period may be too small.



# **Explanation**

A drawback of the historical simulation method is that the past (i.e., the lookback period) may not be indicative of the future.

(Study Session 16, Module 45.1, LOS 45.b)

#### **Related Material**

SchweserNotes - Book 5

Ward Annual Policy of the Control of

A fixed income portfolio manager utilizes duration as a risk measure for the portfolio. The portfolio manager is *most likely*.

A) using scenario analysis.

B) using partial analysis.

C) using sensitivity analysis.

# **Explanation**

Sensitivity analysis evaluates changes in portfolio value due to changes in underlying risk factors. Duration is a risk-factor for a fixed income portfolio capturing the interest rate risk of the portfolio. As such, impact of changing interest rates would be captured by duration of the portfolio and such an analysis is sensitivity analysis.

(Study Session 16, Module 45.2, LOS 45.f)

#### **Related Material**

<u>SchweserNotes - Book 5</u>

Mahakali Book Josephor Gosoon Mahakali Book Josephor Josephor Gosphor Gosphor