2025 FRM Part II Practice Exam #1 – Answer Key

1.	C	21.	B	41.	B	61.	D
2.	C	22.	B	42.	C	62.	C
3.	D	23.	A	43.	B	63.	A
4.	C	24.	A	44.	B	64.	C
5.	A	25.	C	45.	A	65.	B
6.	A	26.	B	46.	B	66.	D
7.	D	27.	C	47.	D	67.	C
8.	B	28.	A	48.	B	68.	B
9.	D	29.	B	49.	A	69.	C
10.	C	30.	A	50.	B	70.	C
11.	D	31.	B	51.	B	71.	B
12.	C	32.	D	52.	C	72.	C
13.	D	33.	B	53.	A	73.	B
14.	C	34.	A	54.	B	74.	A
15.	B	35.	B	55.	A	75.	C
16.	A	36.	C	56.	B	76.	A
17.	C	37.	D	57.	A	77.	B
18.	B	38.	C	58.	B	78.	A
19.	C	39.	B	59.	C	79.	D
20.	C	40.	C	60.	D	80.	B

1.	Question	A risk consultant is assessing a small bank's liquidity risk profile. While reviewing a presentation produced by the bank, the consultant comes across a list of early warning indicators used to signal potentially heightened liquidity risk. Which of the following trends should the consultant consider as the strongest warning signal for potential liquidity risk at the bank?
	A	A decrease in the stock price of some of the bank's peers but not in the stock price of the bank itself
	B	An increase in available credit lines received from other financial institutions.
	C	Widening spreads on the bank's issued debt and credit default swaps
	D	Significant asset growth funded by an increase in stable liabilities
	Correct Answer	C
	Explanation	C is correct. Wider spreads indicate a loss of market confidence in the bank and a higher cost of funding. A is incorrect. A stronger early-warning indicator (EWI) for the bank would be a decrease in stock price of the bank relative to its peers. B is incorrect. A decrease, not an increase, in available credit is problematic for liquidity. D is incorrect. Rapid asset growth funded by volatile liabilities would be more problematic.
	Section	Liquidity and Treasury Risk
	Learning Objective	Evaluate the characteristics of sound Early Warning Indicators (EWI) measures.
	Reference	Shyam Venkat, Stephen Baird, Liquidity Risk Management (John Wiley & Sons, 2016). Chapter 6 - Early Warning Indicators

2. Question

A risk manager is estimating the market risk of a portfolio using both the arithmetic returns with normal distribution assumptions and the geometric returns with lognormal distribution assumptions. The manager gathers the following data on the portfolio:

- Annualized average of arithmetic returns: 16%
- Annualized standard deviation of arithmetic returns: 27%
- Annualized average of geometric returns: 13%
- Annualized standard deviation of geometric returns: 29%
- Current portfolio value: EUR 5,200,000
- Trading days in a year: 252

Assuming both daily arithmetic returns and daily geometric returns are serially independent, which of the following statements is correct?

A The 1-day normal 95% VaR is equal to 1.63% and the 1-day lognormal 95% VaR is equal to 1.76%.

B The 1-day normal 95% VaR is equal to 2.69% and the 1-day lognormal 95% VaR is equal to 2.88%.

C The 1-day normal 95% VaR is equal to 2.74% and the 1-day lognormal 95% VaR is equal to 2.92%.

D The 1-day normal 95% VaR is equal to 3.26% and the 1-day lognormal 95% VaR is equal to 3.48%.

Correct Answer: C

Explanation: 1-day normal 95% VaR = -[(0.16/252)-1.645*0.27/sqrt(252)] = 2.74%
1-day lognormal 95% VaR = 1-exp[(0.13/252)-0.29*1.645/sqrt(252)] = 2.92%

Section: Market Risk Measurement and Management

Learning Objective: Estimate VaR using a parametric approach for both normal and lognormal return distributions.

Reference: Kevin Dowd, Measuring Market Risk, 2nd Edition (West Sussex, England: John Wiley & Sons, 2005). Chapter 3 - Estimating Market Risk Measures: An Introduction and Overview

3.	Question	A UK-based retail brokerage firm has recently experienced rapid growth through a series of acquisitions and plans to improve its operational resilience in order to comply with new requirements issued by national regulators. The CRO asks an operational risk manager to assess best practices in this area and to suggest potential actions that the firm should take to meet this objective. Which of the following actions would be most appropriate for the manager to recommend in order to comply with the regulatory guidelines concerning operational resilience for important business services?
	A	Increase the existing performance incentives for the firm's brokers and sales representatives to further enhance their productivity.
	B	Reduce costs by consolidating the human resources and payroll functions of the acquired firms into a single firm-wide process.
	C	Reserve additional economic capital for operational risk to provide an incremental capital cushion against potentially extreme operational losses.
	D	Increase the bandwidth capacity for the firm's equity trading platform and procure remote backup capabilities so the platform can continue to function during an outage.
	Correct Answer	D
	Explanation	D is correct. Operational resilience relates to the ability of firms and the financial sector as a whole to prevent, adapt, respond to, recover from, and learn from operational disruptions. Importantly, regulators view operational resilience from the perspective of "important business services" which would cause intolerable levels of harm to consumers or market integrity if they are disrupted. The firm's trading platform is an example of an important business service and as such these actions should improve its resilience and help to comply with regulatory expectations. A is incorrect. Increasing internal performance incentives does not necessarily increase the ability of the firm's ability to deliver its processes reliably. B is incorrect. While consolidating costs from multiple systems might be efficient, human resources and payroll are not customer facing systems and improvements to them would not benefit customers or market integrity. C is incorrect. Reserving additional economic capital for operational risk, while potentially beneficial for risk management purposes, does not directly improve the ability of any of the firm's important business services to become more resilient to potential disruptions.
	Section	Operational risk and resilience
	Learning Objective	Describe operational resilience, identify the elements of an operational resilience framework, and summarize regulatory expectations for operational resilience.
	Reference	Global Association of Risk Professionals, Operational Risk and Resilience (New York, NY: Pearson, 2022). Chapter 1 – Introduction to Operational Risk and Resilience

4. Question The board of directors of a midsize bank has recommended that the bank improve its processes for managing operational risk. The CEO asks an enterprise risk manager to review the bank's tools and processes for managing operational risk and to suggest improvements that are consistent with Basel II and Basel III guidelines for operational risk governance. The bank also plans to adopt the new Basel III standardized approach (SA) to determine its regulatory capital for operational risk. Which of the following actions should the manager recommend that the bank take?

A Use third-party outsourcing agreements to replace most internal controls performed by senior managers and business line managers.

B Develop an internal approach to model the distribution of operational risk losses and use it to determine the bank's regulatory capital.

C Require an independent review of the bank's operational risk management framework.

D Designate the risk management function as the primary owner of risk exposures within each business line.

Correct Answer C

Explanation C is correct. The board of directors of a bank should ensure that the bank's framework is subject to independent review by audit or other appropriately trained parties.

A is incorrect. Banks should view risk transfer tools, such as outsourcing and insurance, as complementary to a process of thorough internal operational risk controls. Outsourcing should not be viewed as a replacement for internal controls or to relieve management of the responsibility to manage operational risk. In addition, outsourcing can actually introduce operational risk to the bank.

B is incorrect. The standardized approach does not require the use of an internal model, and in fact, the new Basel recommendation of the standardized approach for all banks phased out the earlier Advanced Measurement Approaches, in which some large banks developed internal models to determine their regulatory capital.

D is incorrect. Risk owners are those responsible for the consequences of the risks they generate or supervise and, as such, their assessment and mitigation. This refers to the business lines, which should serve as the primary owners of the risk taken within their business lines, and not the risk management function. Instead, the risk management function should develop and maintain policies to manage operational risk, review the business lines' risk management activity and have the power to challenge the relevance and consistency of the business unit's implementation of risk management controls. These responsibilities do not make the risk management function the primary owner of the risk, however.

Section Operational Risk and Resilience

Learning Objective Explain the Basel regulatory expectations for the governance of an operational risk management framework.

	Reference	Global Association of Risk Professionals, Operational Risk and Resilience (New York, NY: Pearson, 2022). Chapter 1 – Introduction

5.	Question	A risk consultant has been hired by a bank to review and evaluate the bank's current liquidity transfer pricing (LTP) policy and recommend changes to it. The consultant reviews the governance of the LTP process and prepares a report based on industry best practices. Which of the following would be a correct recommendation for the consultant to make?
	A	The real costs of the bank's liquidity cushion are best reduced through long-term funding.
	B	LTP of contingent bank obligations, such as collateral calls and committed lines of credit, can only be conducted after the first drawdown.
	C	A pooled average cost of funds approach is the most accurate LTP formula.
	D	A liquidity transfer price should reflect the costs, benefits, and risks of the bank as a whole.
	Correct Answer	A
	Explanation	A is correct. The bank's liquidity cushion real costs are best reduced through long-term funding. B is incorrect. Contingent bank obligations such as collateral calls and committed lines of credit are assigned a liquidity transfer price when established. C is incorrect. A matched-maturity marginal cost of funds approach is the most accurate transfer pricing formula. D is incorrect. Liquidity transfer pricing should reflect the costs, benefits and risks of respective businesses.
	Section	Liquidity and Treasury Risk
	Learning Objective	Discuss the process of liquidity transfer pricing (LTP) and identify best practices for the governance and implementation of an LTP process.
	Reference	Joel Grant, 2011, "Liquidity Transfer Pricing: A Guide to Better Practice," Occasional Paper, Financial Stability Board, Bank for International Settlements

6. Question

A credit manager in the counterparty risk division of a large bank uses a simplified version of the Merton model to monitor the relative vulnerability of its largest counterparties to changes in their valuation and financial conditions. To assess the risk of default of three particular counterparties, the manager calculates the distance to default assuming a 1-year horizon (t=1). The counterparties: Company P, Company Q, and Company R, belong to the same industry, and are non-dividend-paying firms. Selected information on the companies is provided in the table below:

Company	P	Q	R
Market value of assets (EUR million)	100	150	250
Face value of debt (EUR million)	60	100	160
Annual volatility of asset values	10.0%	7.0%	8.0%

Using the information above with the assumption that a zero-coupon bond maturing in 1 year is the only liability for each company, and the approximation formula of the distance to default, what is the correct ranking of the counterparties, from most likely to least likely to default?

A P; R; Q

B Q; P; R

C Q; R; P

D R; Q; P

Correct Answer A

Explanation A is correct. Distance to Default (DtD) approximates the number of standard deviations to reach the default threshold; thus, the higher the DtD, the least likely to default.

$$DtD = \frac{\ln V_a - \ln F + \left(\mu - \frac{\sigma_a^2}{2}\right)(t)}{\sigma_a \sqrt{t}}$$

DtD can be simplified by reducing the forward time periods to 1 (t=1) and minimizing the drift factors (μ - σ2/2) that tend to be small (assumed to equal 0) over one period to yield:

$$DtD \cong \frac{\ln V_a - \ln F}{\sigma_a}$$

Using this formula results in:
DtD for Company P = ln(100/60)/0.10 = 5.11
DtD for Company Q = ln(150/100)/0.07 = 5.79
DtD for Company R = ln(250/160)/0.08 = 5.58
Q is least likely to default; R is in the middle; P is most likely to default.

Section Credit Risk Measurement and Management

Learning Objective Calculate distance to default and default probability using the Merton model.

Reference John C. Hull, Risk Management and Financial Institutions (Sixth Edition, John Wiley & Sons, 2023). Chapter 17. Estimating Default Probabilities.

7. Question Bank HJK has written puts on Bank PQR stock to a hedge fund and sold CDS protection on Bank PQR to a manufacturer. Bank HJK and Bank PQR operate in several of the same businesses and geographies and their performances are highly correlated. Many in the market are concerned that rising interest rates could negatively impact the credit quality of Bank HJK's numerous borrowers, which in turn would increase the credit spread of Bank HJK. From the perspectives of the hedge fund and the manufacturer, which of the following is correct with respect to their counterparty risk exposure to Bank HJK?

	Hedge Fund	Manufacturer
A	Right-way risk	Wrong-way risk
B	Wrong-way risk	Right-way risk
C	Right-way risk	Right-way risk
D	Wrong-way risk	Wrong-way risk

Correct Answer D

Explanation D is correct.
The hedge fund has wrong-way risk. As interest rates rise, both Bank HJK's and Bank PQR's equity value would decline since the performances of the two banks are highly correlated. Therefore, the value of the long put option on PQR would increase, resulting in a higher exposure to bank HJK for the hedge fund. This is a wrong-way risk since the hedge fund's exposure to HJK would be increasing as the credit quality of HJK is declining.
The manufacturer also has wrong-way risk. Since the credit spread of Bank HJK is increasing and credit spreads of different banks in the same market tend to be positively correlated, the credit spread of Bank PQR should also increase. Therefore, the value of the manufacturer's long CDS position on Bank PQR is increasing at the same time the credit quality of Bank HJK is decreasing; thus, that is wrong-way risk.

Section Credit Risk Measurement and Management

Learning Objective Identify examples of wrong-way risk and examples of right-way risk.
Describe wrong-way risk and contrast it with right-way risk.

Reference Jon Gregory, The xVA Challenge: Counterparty Credit Risk, Funding, Collateral, and Capital, 4th Edition (West Sussex, UK: John Wiley & Sons, 2020). Chapter 17. CVA

8. Question A portfolio manager at a hedge fund manages an equity portfolio that is benchmarked to an index. The information on the performance of the portfolio and the benchmark over the last 5 years is provided below:

Year	Portfolio rate of return	Benchmark rate of return	Portfolio beta with respect to the benchmark
1	0.072	0.070	0.92
2	0.052	0.054	0.88
3	0.052	0.047	0.90
4	0.060	0.060	0.84
5	0.048	0.033	0.89

What is the approximate value of the manager's information ratio?

A 0.20

B 0.60

C 0.90

D 1.08

Correct Answer B

Explanation B is correct.

Year	Portfolio rate of return	Benchmark rate of return	Portfolio beta with respect to the benchmark	Excess return
1	0.072	0.070	0.92	0.002
2	0.052	0.054	0.88	-0.002
3	0.052	0.047	0.90	0.005
4	0.060	0.060	0.84	0.000
5	0.048	0.033	0.89	0.015

IR = Average excess returns / Std dev of excess returns
(IR = Alpha / Tracking error)

Average excess returns: 0.0040
Std dev of excess returns: 0.0067
IR = 0.59

A is incorrect. It is found by dividing portfolio returns by benchmark returns and then taking the standard deviation of these ratios.

C is incorrect. It is the average of betas.

D is incorrect. It is found by dividing average portfolio returns by average benchmark returns.

Section Risk Management and Investment Management

Learning Objective	Define and calculate alpha, tracking error, the information ratio, and the Sharpe ratio.
Reference	Andrew Ang, Asset Management: A Systematic Approach to Factor Investing (New York, NY: Oxford University Press, 2014). Chapter 10. Alpha (and the Low-Risk Anomaly)

9. Question

A risk analyst is evaluating an investment portfolio using the Fama-French three-factor model. The analyst regresses thirty years of weekly portfolio returns against the three factors of the model. The analyst obtains the following regression results:

Alpha	0.10
Market coefficient	0.52
SMB coefficient	0.18
HML coefficient	-0.70

Assuming all estimated coefficients are statistically significant, which of the following is correct?

A There is a positive correlation between portfolio return and the size factor, which indicates that the portfolio moves together with large-cap stocks.

B There is a positive correlation between portfolio return and the value factor, which indicates that the portfolio moves together with growth stocks.

C There is a negative correlation between portfolio return and the size factor, which indicates that the portfolio moves together with large-cap stocks.

D There is a negative correlation between portfolio return and the value factor, which indicates that the portfolio moves together with growth stocks.

Correct Answer: D

Explanation: D is correct. The two Fama-French factors, SMB and HML, are factors that measure size and value-growth exposures, respectively. The SMB factor measures the outperformance of small-capitalization stocks versus large-capitalization stocks. A positive SML coefficient indicates that the portfolio is moving together with small cap stocks and a negative SML coefficient indicates that the portfolio is moving together with large cap stocks. The HML factor measures the outperformance of value stocks versus growth stocks. A positive HML coefficient indicates that the portfolio is moving together with value stocks and a negative HML coefficient indicates that the portfolio is moving together with growth stocks. In this question, based on the regression results, the SMB coefficient has a positive value, which means there is a positive correlation between portfolio return and SMB, and the HML coefficient has a negative value, which means there's a negative correlation between portfolio return and HML.

We can rule out B and C.

A is incorrect because, as mentioned above, a positive SML coefficient indicates that the portfolio is moving together with small cap stocks.

Section: Risk Management and Investment Management

Learning Objective: Explain how dynamic risk factors can be used in a multifactor model of asset returns, using the Fama-French model as an example.

Reference: Andrew Ang, Asset Management: A Systematic Approach to Factor Investing (New York, NY: Oxford University Press, 2014). Chapter 7. Factors