

#### **Department of Finance & Investment Management**

# RISK IN FINANCIAL SERVICES 2B RFS22B2

## **Final Assessment Opportunity**

### **November Examination 2019**

Time: 2 hours Marks: 70

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#### **INSTRUCTIONS:**

This paper consists of 10 pages (including the cover page).

Start each question on a new page.

Calculators are allowed

Question	Topic	Marks	Time
1 2 3 4 5 6	Multiple choice Investment Risk Liquidity Risk Corporate Governance Model Risk Enterprise Risk Management	35 10 8 7 6 4	45 minutes 18 minutes 17 minutes 16 Minutes 14 Minutes 10 Minutes
	·	70	120 minutes

**70 120** minutes

#### QUESTION 1 - (35 marks)

- 1. Within a simple risk framework, which of the following key activities would normally be carried out at Board level?
- A. Assessing the risks
- B. Managing risk on a day-to-day basis
- C. Monitoring risk and associated controls
- D. Setting risk policies
- **2.** Which of the following processes would be considered to provide a firm-wide risk management approach?
- A. Operational risk policy
- B. Enterprise risk management
- C. Value-at-risk models
- D. Cost-based provisioning
- 3. Which of the following is an input to loss causal analysis?
- A. Value-at-Risk calculations
- B. Actual and contractual cash receipts
- C. Historical loss data
- D. Correlation coefficients alpha and beta
- **4.** A bank has a number of risk sub-committees, which report into a crucially important central risk committee. In accordance with best practice, each member of this central risk committee:
- A. should be insured on a key person basis
- B. must be the subject of a succession plan
- C. should be a member of the board of directors
- D. must be professionally qualified in a relevant subject
- 5. A member of a company's IT department has been careless in his programming work as he knows that it will not be checked by a supervisor. This type of problem is normally described as:
- A. a moral hazard
- B. a physical hazard
- C. an institutional risk
- D. a strategic risk

- **6.** To comply with the Basel II Principles for Sound Liquidity Risk Management, how should banks control liquidity risk exposure?
- A. By effecting appropriate insurance
- B. By projecting cash flows
- C. By utilising external consultants
- D. By communicating closely with depositors
- **7.** The volatility of an investment's value can be quantified mathematically by calculating the investment's:
- A. Variance
- B. Inter-quartile range
- C. Beta
- D. Standard deviation
- **8.** A portfolio's tracking error is a measure of:
- A. Its volatility relative to the volatility of the FTSE 100
- B. Its outperformance against its benchmark
- C. How closely it follows the index to which it is benchmarked
- D. Its underperformance resulting from systematic risk
- **9.** The risk of loss through being unable to obtain a price on a product when required is which ONE of the following types of market risk?
- A. Commodity risk
- B. Basis risk
- C. Liquidity risk
- D. Volatility risk
- **10.** What is the risk exposure for Firm C under a netting agreement for the following transactions if Firms A and B default?

Firm A owes Firm C £40 million

Firm B owes Firm C £20 million

Firm C owes Firm A £50 million

Firm C owes Firm B £40 million

- A. £20 million
- B. £30 million
- C. £40 million
- D. £50 million

- **11.** When a company understands the overlap of external and internal risk drivers it should first:
- A. Carry out a stress test for internal risk drivers.
- B. Consider each risk independently and in isolation.
- C. Consider the interactive nature of the two risks.
- D. Carry out a stress test for external risk drivers.
- **12.** A shortage of market makers is MOST likely to generate:
- A. Basic risks
- B. Liquidity risk
- C. Commodity price risk
- D. Price level risk
- **13.** When considering entering a new market, when should a firm's product development team consider engaging a representative from the risk management team?
- A. As early as possible
- B. Once product teams are proposed
- C. Once a risk exposure is identified
- D. As soon as a launch date is set
- **14.** ABC Bank has exposure of £10m to hedge fund XYZ comprising assets of £40m and liabilities of £30m. There is a netting agreement in place and XYZ subsequently crashes. If creditors receive 60p in the pound, ABC's net assets of £10m will become a cash:
- A. Inflow of £4m
- B. Inflow of £6m
- C. Outflow of £4m
- D. Outflow of £6m
- **15.** The PRIMARY purpose of constructing a maturity ladder is to:
- A. Stress test given scenarios
- B. Compare cash inflow with cash outflows
- C. Reduce the level of basis risk
- D. Measure historical loss data
- **16.** Historically, as a general rule to maximize investment returns, the longer a portfolio is to remain invested the:
- A. More important it is to include tax-free products
- B. Higher the proportion that should be invested in equities

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- C. Less the investor will benefit from pound cost averaging
- D. More likely it is that the investor will suffer from volatility
- **17.** Who normally takes responsibility within a firm for ensuring that loan granting activities are not too closely linked to trading activities? The
- A. Finance director
- B. Compliance officer
- C. Basel Il committee
- D. Credit risk management function
- **18.** If a fund has a beta of 0.4, this indicates that the fund
- A. Tends to be more volatile than the market
- B. Tends to be less volatile than the market
- C. Has outperformed the market
- D. Has underperformed the market.
- **19.** What management decision could be seen as adding value and reducing risk within a firm? The
- A. Risk officer should be involved in developing the firm's strategy
- B. Firm's risk appetite statement should never be changed
- C. Firm's risk appetite statement should be kept confidential
- D. Head of risk reports directly to the head of a business that he/she monitors
- **20.** A fund manager is measuring the standard deviations of a fund's excess return from the benchmark. This will provide the
- A. Sharpe ratio
- B. Tracking error
- C. Alpha value
- D. Abnormal return
- **21.** Which of the following situations is the best example of the realization of a funding liquidity risk?
- A. Fund values are being depressed by the market movement
- B. Third party fund are not available when required
- C. Cash outflow of fund are higher than anticipated
- D. Unexpected margin calls are depleting fund levels
- **22.** What is an advantage of the bottom-up approach to risk assessment?
- A. it allows a firm to make a judgement on what 'good' is
- B. it promotes a risk aware culture and a more transparent environment

- C. it allows trends to be monitored
- D. it provides easily comparable statistics across departments
- **23.** Typically, the board of financial services firm will delegate its risk management responsibility to:
- A. the audit committee
- B. the head of risk management
- C. compliance
- D. the risk committee
- **24.** Which of the following factors BEST explains why there is an increased likelihood of corporate failure during periods of market dislocation?
- A. Loan shortages
- B. Excessive inflation
- C. High interest rates
- D. Aggressive competition
- **25.** Which of the following is a key way of ensuring that financial institution's risk governance structure is robust?
- A. Focus on risk transfer in preference to risk avoidance
- B. Establish a corporate risk appetite which is as conservative as possible
- C. Prioritize external risk controls ahead of internal risk controls
- D. Detail the role of the risk managers as comprehensively as possible
- **26.** Which of the following is a key area of risk within financial services as defined by the Bank for international settlement?
- A. Commodity risk
- B. Enterprise risk
- C. Funding liquidity risk
- D. External reputation risk
- **27.** When conducting stress tests relevant risk factors should be altered:
- A. In gradually increasing steps
- B. Individually or in pairs only
- C. To reflect standard market scenarios
- D. To reflect exceptional but plausible scenarios
- **28.** Information on future earnings would normally be the responsibility of which of the following participants in a firm's enterprise risk management programme?
- A. Finance department

- B. credit risk department
- C. operational risk team
- D. strategy team
- 29. What is the main reason why banks operate liquidity limits? To
- A. Maintain appropriate leverage ratios
- B. Avoid suppressed profits as result of excessive liquidity
- C. Ensure liquidity needs are satisfied by liquidity availability
- D. Prevent the liquidity level becoming too volatile
- **30.** James and Susan both have corporate governance responsibilities. Their firm, pursuing an enterprise risk management approach, will provide them with valuable assistance by:
- A. Transferring all regulatory responsibilities to an external risk committee
- B. Enabling them to see a single view of the firm's risk profile
- C. Focusing on the impact on the business of the greatest perceived risk
- D. Providing independent analysis of the pension obligation and insurance risks
- **31.** The internal audit function is considered to be one of the three lines of defence in risk management because it:
- A. Has day-to-day responsibility and accountability for assessing, controlling and managing risk
- B. Helps to set the risk appetite, strategy and ensures the adequacy of risk mitigation
- C. Provides independent assurance on the appropriateness and effectiveness of policy implementation and internal controls
- D. Works closely with and supports the work of external audit teams and risk managers
- **32.** One of the main ways of achieving "mean-variance optimization" when constructing a portfolio is to ensure that:
- A. The least correlated relationship exists between individual assets
- B. Only shares with a relatively high standard deviation are used
- C. The degree of diversification is kept to the minimum possible level
- D. Only short term factors are considered when making stock selection
- **33.** Enterprise risk management is broadly defined as the:
- A. Application of an acceptable profile created in accordance with the amount of risk capital available
- B. Process of applying risk management to all risks and how they interrelate
- C. Management of the risks associated specifically with the acquisition of new business

- D. Process of managing the impact on the business of the interaction between credit risk and liquidity risk
- **34.** Part of a firm's activities in addressing its regulatory requirements involved an Internal Capital Adequacy Assessment Process (ICAAP). How will the first step in this exercise help the firm to implement (ERM) programme? It:
- A. Includes a detailed view on the firm's earnings at risk
- B. Defines and quantifies the firm's overall risk exposure across all risk types
- C. Provides a stress test for the firm's identified greatest risk
- D. Highlights the point at which an ERM programme becomes more effective than an ICAAP
- **35.** One of the key weaknesses of using standard deviation as a measure of investment risk is that:
  - A. it ignores dividend reinvestment
  - B. it ignores short-term volatility
  - C. it assumes past experiences will tend to continue
  - D. it assumes a lack of any form of competitor activity

#### **QUESTION 2 - (10 marks)**

- 2.1 Explain in full details factors associated with beta <u>equal</u>, <u>greater or less than one</u> (1), as a measure of volatility of an investment relative to the market. (3)
- 2.2 Explain short selling as a method used to mitigate investment portfolio risk. (1)
- 2.3 In monitoring, managing and reporting as a key to investment management specify who performs:

2.3.1 peer review? (1)

- 2.3.2 risk review? (1)
- 2.4 Clearly distinguish between property risk and commodity risk. (2)
- 2.5 Calculate the real rate of return given that the nominal rate of return is 13% per annum and the annual rate of inflation is 5% per annum. (2)

#### **QUESTION 3 - (7 marks)**

3.1 What is the definition of funding liquidity risk? (1)

- 3.2 Explain which two main financial risk types are linked to liquidity risk and how they are linked? (2)
- 3.3 Clearly distinguish between maturity ladder and liquidity gap. (2)
- 3.4 Briefly describe two ways on how market dislocation affects the system. (2)

#### **QUESTION 4 - (8 marks)**

- 4.1 What is corporate governance? (1)
- 4.2 A risk-focused governance structure enables risk to be taken seriously at the top of the firm and, importantly, to be seen as being taken seriously. However, for a firm to embed a risk culture, its written policies must also emphasise, and enable, a focus on risk management. Key policies and approaches that will tend to enable a risk culture include elements in the tables below.

#### Match the following:

A	В	C	D	E	F	G
Escalation	Staff	Risk	Staff	Code of	Risk	Calibre of
and	appraisal	function(s)	remuneration	conduct	policy	risk
whistle-	process	independence	policy			personnel
blowing		_				
processes						

1	Compensation linked to risk management.	
2	Risk management is a key objective, with accountability for risk management being a priority for the whole institution.	
3	It is comprehensive enough to cover the firm at all levels, yet succinct enough to be read and understood, is easily available within the firm and there is an element of required reading.	
4	Head of risk/chief risk officer being independent and having authority.	
5	The firm is willing to pay for high-quality risk personnel with the people skills necessary to convey to staff the importance of good risk management. A basic essential need is for risk management to have a sufficient amount and quality of resources to fulfil its roles, and it is the responsibility of senior management and, ultimately, the board to ensure that it does.	
6	Clearly, defined and made as easy as possible for staff wishing to report bad news.	
7	Responsibilities, behaviours, and standards of ethics are expected to be followed by all.	

(7)

#### **QUESTION 5 - (6 marks)**

- 5.1 A firm's internal audit function should assess the overall effectiveness of the model risk management framework. Which internal audit staff should not be involved in this assessment? (1)
- 5.2 What would typically be covered by a model risk policy? Name five elements. (5)

#### **QUESTION 6 - (4 marks)**

- 6.1 What is the definition of enterprise risk management (ERM)?
- 6.2 Which area of industry regulation is driving firms towards ERM? (1)
- 6.3 Firm risks the firm's risks are those which either impact the firm in two ways.

  Briefly name and Illustrate these two ways.

  (2)