FINAL EXAMINATION

December 2024

P–20B(RMBI)
Syllabus 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

Time Allowed: 3 Hours — Full Marks: 100

The figures in the margin on the right side indicate full marks.
Where considered necessary suitable assumptions may be made an clearly indicated in the respective answer. All workings should form part of the answer.

Answer Question No. 1 *and* any five *from* Question No. 2, 3, 4, 5, 6, 7 *and* 8.

Section-A

Answer Question No. 1 which is compulsory.

1. **(a) Choose the correct answer from the given four alternatives:** 2×10=20

(i) What capital conservation buffer do banks have to maintain as per the BASEL-III framework?

(A) 1%

(B) 2.5%

(C) 3%

(D) 4.5%

(ii) When the risk of losses in on-or-off balance sheet positions arise from movement in market prices, it is called as __________.

(A) Credit Risk

(B) Operational Risk

(C) Market Risk

(D) Liquidity Risk

(iii) The Liquidity Coverage Ratio (LCR) requires banks to hold high-quality liquid assets to cover:

(A) 50% of cash outflows over 60 days

(B) 100% of net cash requirements over 30 days

(C) 75% of cash requirements over 45 days

(D) 100% of net cash outflows over 90 days

(iv) Which of the following is not a type of risk in the Banking Sector?

(A) Credit Risk

(B) Operational Risk

(C) Market Risk

(D) Account Risk

(v) Subrogation follows from the principle of __________.

(A) Indemnity

(B) Insurance

(C) Risk-Coverage

(D) Risk-Mitigation

(vi) Which of the following terms matches closest with 'Family Floater'?

(A) Health Insurance

(B) Property Insurance

(C) Consequential Loss

(D) Accidental Injury to Family members

(vii) Compared to the premium for a Whole Life Plan, the premium for an Endowment Plan will be _________ for the same age.

(A) Less

(B) More

(C) Equal

(D) Half

(viii) Which of the following terms matches closest with 'Foreclosure'?

(A) Nominee

(B) Death Claim

(C) Surrender Value

(D) Maturity Claim

(ix) Which organization serves as the exclusive national reinsurer, providing reinsurance to insurance companies in India?

(A) Life Insurance Corporation of India

(B) National Insurance Company

(C) General Insurance Corporation of India

(D) New India Assurance Company

(x) What is the maximum coverage amount provided under the Varishta Mediclaim policy for critical illnesses?

(A) ₹ 50,000

(B) ₹ 1 lakh

(C) ₹ 2 lakh

(D) ₹ 3 lakh

(b) Based on the following case study, you are required to answer the question nos. (xi) to (xv). 2×5=10

ABC Bank is managing its financial risk with a six-month repricing gap of ₹200 crore. The bank's rate-sensitive assets total ₹500 crore, while its rate-sensitive liabilities amount to ₹300 crore. Given the bank's expectation of rising interest rates over the next six months, the manager is focused on mitigating interest rate risk to protect profitability and manage exposure.

In parallel, Bharat Oil Ltd., an A-rated oil company has applied for a fully drawn one-year credit facility of ₹1,600 crore. The company is seeking a commitment of ₹700 crore from ABC Bank. However, the bank's credit portfolio management team has placed a limit of ₹150 crore, as they are concerned about the bank's significant exposure to the oil company. To address this issue, Mr. Tendulkar, a member of the bank's credit portfolio management team, proposes using a Credit Default Swap (CDS). ABC Bank can partially insure its exposure to the ₹700 crore facility with a CDS.

In this respective situation, choose the correct option from the four alternatives given:

(xi) What is the primary benefit of using a Credit Default Swap (CDS)?

(A) Increases liquidity in the market

(B) Reduces operational risk for banks

(C) Transfers credit risk to another party

(D) Eliminates all risks for the bank

(xii) Which financial instrument can a bank use to hedge its exposure to a single company's credit risk, enabling it to provide a larger credit facility without exceeding its internal risk limits?

(A) Interest Rate Swap

(B) Credit Default Swap

(C) Equity Swap

(D) Total Return Swap

(xiii) What action is the bank manager likely to take to reduce the bank's exposure to rising interest rates?

(A) Increase short-term variable-rate loans

(B) Convert fixed-rate liabilities to floating rates

(C) Convert assets into fixed-rate loans

(D) Reduce long-term debt holdings

(xiv) What happens to a bank's profitability, if interest rates rise and if it has a large gap of rate-sensitive liabilities over assets?

(A) Profitability decreases

(B) Profitability increases

(C) Profitability remains the same

(D) Profitability fluctuates unpredictably

(xv) What is the primary purpose of the bank manager's actions in mitigating interest rate risk?

(A) To increase the bank's profitability

(B) To reduce the bank's exposure to interest rate fluctuations

(C) To raise additional capital for the bank

(D) To improve the bank's liquidity

Section-B

Answer *any five* Questions from Question No. 2 to Question No. 8.
Each question carries 14 marks. 14×5=70

2. (a) **Describe** the six essential loss control strategies aimed at reducing the possibility of a loss and/or limiting its severity. 7

(b) "The term structure of interest rates and a yield curve are the same, as both represent a graph plotting different yields offered by bonds of varying maturities." **Examine** the validity of the statement with respect to the three yield curve shapes. 7

3. (a) XYZ Bank, a mid-sized financial institution, is expanding its loan portfolio by offering credit to small and medium-sized enterprises (SMEs). As the bank ventures into this new market, its risk management team assesses the potential risks involved. The bank wants to ensure that its credit risk models are robust enough to handle the diverse risk profiles of SMEs while maintaining a healthy balance sheet.

Based on this scenario, **evaluate** the types of credit risk XYZ Bank might encounter. Also, explain the factors influencing its credit risk modeling for the SME loan portfolio. 7

(b) "Country risk arises when a foreign entity or a counterparty, private or sovereign, is unwilling or unable to fulfill its obligations for reasons, other than the usual reasons or risks which arise for all lending and investment". Briefly **examine and analyze** the Statement with your comments. 7

4. (a) Dhanalaxmi Bank is strengthening its risk management framework by focusing on operational risks. The bank is implementing guiding principles such as proper identification and assessment to mitigate potential operational threats and improve overall stability.

Examine the importance of identification and assessment as guiding principles for managing operational risks in banks. How can these steps enhance risk mitigation efforts? 7

(b) Gold Bank, acting as a protection buyer, purchases a 5-year credit protection on a company at a default swap spread of 300 basis points (bp). The face value of the protection is ₹10 million. Two months after the protection is purchased, the reference entity (the company) experiences a credit event, causing a default on its obligations. Following the credit event, the assets of the reference entity have a recovery price of ₹45 per ₹100 of face value. In this scenario, **explain** the following:

(i) Who receives compensation from the protection seller, and how much is the compensation amount?

(ii) Who undertakes the responsibility of making payments to the protection seller, and what is the payment amount? 7

5. (a) Global Trust Bank reported total advances amounting to ₹50,000 crores as of March 31, 2024. The bank's Gross Non-Performing Assets (NPA) were recorded at 8%, while the Net NPA stood at 3%. This scenario suggests that a considerable portion of the bank's portfolio is under stress, potentially affecting profitability and liquidity. To address these challenges, the bank's management must implement strong recovery measures and enhance credit appraisal standards to reduce risks and improve asset quality. Based on this information, **analyze** the following:

(i) Given that all the standard loan accounts are general advances, what is the amount of provision required for standard loan accounts?

(ii) What is the amount of provision required for NPA accounts?

(iii) What is the total amount of provisions for all advances, including the standard accounts?

(iv) What is the total amount of gross and net NPA?

(v) What is the provision coverage ratio for NPA?

(vi) What is the minimum amount of provision required to meet a Provision Coverage Ratio (PCR) of 70%? 7

(b) How do the frequency and focus differ between on-site and off-site inspections in the supervision process carried out by the Insurance Regulatory and Development Authority (IRDA)? 7

6. (a) "The roles played by a third-party administrator and a surveyor in the matter of after-sales service of an insurance product are the same." Do you agree? **Discuss.** 7

(b) **Discuss** the types of Postal Life Insurance Schemes. 7

7. (a) **Explain** the concept of Alternative Risk Transfer (ART) with an example, and demonstrate the role of captives and protected cells within ART. 7

(b) **Examine** the various risks faced by professionals in the insurance sector, such as property damage, data breaches, product or service issues, and human capital costs. Also, demonstrate the mitigation options available for each. 7

8. (a) The management of Reliable Bank Ltd., after a detailed discussion on Asset Liability Management, has decided to formulate a policy relating to the volatile portion of money to be placed based on its maturity bucket. One of the members of the management has given the presentation on the guidelines issued by the RBI on Asset Liability Management which are as under:

As per RBI guidelines on Asset Liability Management, capital and reserves are to be placed in over 5 years bucket, Savings Bank and Current Deposits may be classified into volatile and core portions. Savings Bank (10%) and Current (15%) Deposits are generally withdrawable on demand. This portion may be treated as volatile. While the volatile portion can be placed in the time bucket for 14 days, the core portion may be placed in over 1-3 years bucket.

The following information has been provided by the management in this regard:

	(₹ in Crore)
Capital	1,652
Reserves	16,800
Current account	1,400
Saving Bank	5,600

The term deposits are to be placed in respective maturity buckets as given below:

	(₹ Crore)
1-month maturity bucket	560
1 month to less than 3 months maturity bucket	1,120
3 months to less than 6 months maturity bucket	1,680
6 months to less than 12 months maturity bucket	2,800
1 year to less than 3 years maturity bucket	1,680
3 years to less than 5 years maturity bucket	840
Above 5 years maturity bucket	1,120
Borrowing from RBI	560

Design a comprehensive report that integrates the amount of current and savings account deposits allocated to 14-day and 1-3 year buckets, along with the total amount of term deposits distributed across maturity buckets up to less than 12 months. 7

(b) Western Ltd. carries a large volume of stock. It has secured fire policies to cover the stocks from three general insurers, the details of which are as under:

Insurer	Sum Assured
M Insurance Co. Ltd.	₹ 75,00,000
N Insurance Co. Ltd.	₹ 50,00,000
S Insurance Co. Ltd.	₹ 25,00,000

On 31st July 2024, when a fire took place, the value of the actual stocks in the godown, on the basis of the company's accounts was ₹1,60,00,000. Salvage gained was ₹1,50,000 which the company recovered and realised by way of sales.

The management of Western Ltd. has approached you as the Management Consultant to **design** a detailed report indicating the individual liability of each insurer, based on the assumption that the fire claim has been admitted by the companies. 7