

**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

#### $\mathbf{PAPER} - \mathbf{20B}$

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.

### **SECTION – A (Compulsory)**

1. Choose the correct option:

 $[15 \times 2 = 30]$ 

- (i) "Payments credited to the wrong account" is an example of which Risk?
  - a. Credit Risk
  - b. Operational Risk
  - c. Market Risk
  - d. Liquidity Risk
- (ii) When a bank's image and public standing is in doubt and leads to the public's loss of confidence in a bank, it is called as-----.
  - a. Reputational risk.
  - b. Moral Hazard.
  - c. Operational risk.
  - d. Market risk
- (iii) In line with BASEL-II guidelines, what was the minimum percentage CRAR prescribed by Reserve Bank of India?
  - a. 9%
  - **b. 8%**
  - c. 7%
  - d. 6%
- (iv) In which Policy, the insurer agrees to pay the assured or his nominees a specified sum of money on his death or on the maturity of the policy whichever is earlier?
  - a. Money Back Plan
  - **b. Endowment Plans**
  - c. Annuity Policy
  - d. Unit-linked insurance plan
- (v)Master policy is issued for \_\_\_\_
  - a. Term insurance schemes
  - b. permanent insurance
  - c. individual insurance
  - d. group insurance schemes

**MODEL ANSWERS** 

CONTINUES OF THE STATE

#### **PAPER – 20B**

TERM – DEC 2024 SYLLABUS - 2022

**SET - 1** 

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

(vi) \_\_\_\_\_\_ is a voluntary termination of the contract by the policy holders.

- a. Report
- b. Surrender
- c. Prospectus
- d. Cover note
- (vii)Which of the following involves proportionate sharing of the insurance among more than one insurer?
  - a. Premium
  - b. Cover note
  - c. Reinsurance
  - d. Co-insurance

#### (viii) Which of the following method reduces the chance of loss to zero?

- a. Risk Transferring
- b. Risk avoidance
- c. Risk retention
- d. Risk reduction
- (ix) The risk stating the assets are sold at low prices because of sudden surge in withdrawals of a:
  - a. Payment Risk.
  - b. Liquidity Risk.
  - c. Income Risk.
  - d. Balance Risk.
- (x) Insurable interest means -

Statement A: Legal right to insure.

**Statement B: Have suffered financial loss.** 

- a. Both statements are correct
- b. Both statements are wrong
- c. Statement A is correct
- d. Statement B is correct

#### Answer:

| i   | ii  | iii | iv  | v   | vi  | vii | viii | ix  | X   |
|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| (b) | (a) | (a) | (b) | (d) | (b) | (d) | (b)  | (b) | (a) |

(b) Based on the following case study, you are required to answer the questions no. (i) to (v)

Mumbai branch of Popular Bank granted a term loan of ₹ 2 Crores to a reputed corporate client for 6 years at 2% + Base rate.

**MODEL ANSWERS** 

**PAPER – 20B** 

**TERM – DEC 2024** 

**SET - 1** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

Presently, the base rate of the bank is 10%. The loan will be repaid by the company in 20 equal quarterly instalments with a moratorium period of 6 months. The loan has been funded by the bank out of fixed deposit @ 7% fixed rate of interest, of equal amount, with a maturity period of 4 years. The CRR and SLR are to be ignored for any calculations.

- (i) In this case, the loan is carrying a floating rate and the deposit is carrying a fixed rate. If the rate of interest is reduced during the first 4 years i.e., during the period of FDR, what type of risk, the bank is exposed to:
  - a. Funding Risk
  - b. Embedded Options Risk
  - c. Basis Risk
  - d. Gap or Mismatch
- (ii) The rate of interest at the end of 4 years on a loan and the fresh deposit to be raised for funding this loan can be different. This is called:
  - a. Reinvestment Risk
  - b. Embedded Option Risk
  - c. Basis Risk
  - d. Gap or Mismatch
- (iii) With quarterly repayment of the loan, the repayment amount has to be deployed by the bank elsewhere and the rate of interest may not be at par with the interest being charged on the loan. Due to this, the bank is exposed to:
  - a. Reinvestment Risk
  - b. Embedded Option Risk
  - c. Basis Risk
  - d. Gap or Mismatch
- (iv) There is a possibility that the company may prepay the loan or the depositor may withdraw the deposit prematurely. Due to this, the bank is exposed to:
  - a. Reinvestment Risk
  - b. Embedded Option Risk
  - c. Basis Risk
  - d. Gap or Mismatch
- (v) Which of the following other risk is not associated with this transaction?
  - a. Liquidity Risk
  - b. Equity Risk
  - c. Credit Risk
  - d. Operational Risk

**Answer:** 

| i   | ii  | iii | iv  | v   |
|-----|-----|-----|-----|-----|
| (c) | (d) | (a) | (b) | (b) |



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

[7]

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

# **SECTION-B**

(Answer any 5 questions out of 7 questions given. Each question carries 14 marks.) [5 x 14 = 70]

#### 2. (a) Explain the Obstacle to Risk Management in Banks.

#### Answer:

1. Regulatory Changes:

The financial services regulatory landscape is in a constant state of flux, with new regulations or amendments to existing regulations being handed down every month in response to political turmoil, public sentiment, emerging technology, and more. It can be challenging for banks to comply with the ever-changing rules, but comply they must, lest they expose themselves to compliance risk and the potentially severe consequences that accompany it.

Compliance risk management in banks essentially boils down to three basic steps:

• The bank becomes aware of the regulation.

• The bank works to understand the impact of the regulation on its core business model.

• The bank implements the necessary changes to ensure compliance.

Although it might seem simple on its face, this process requires banks to expend a significant amount of resources, financially and otherwise. Therefore, the best way to conserve resources and achieve compliance much faster is to automate compliance risk management. Newer cloud-based developer tools and highly automated Developed technologies reduce the adverse impact of applying frequent regulatory changes to operational systems. Comprehensive cloud-based test systems can be spun up as needed for full-scale regression tests of complex financial systems and then scaled back down to eliminate the carrying cost of idle test systems.

#### 2. Rising Customer Expectations:

Today's customer is expert at using their personal device for tasks they would otherwise perform manually, including banking. This has led mobile banking apps to become ubiquitous-in fact; you'd be hard-pressed to find a financial institution that doesn't have a mobile app. That said, these apps are often treated as a supplement to a bank's brick-and-mortar offerings rather than a one-stop-shop. Even for more techsavvy institutions, their mobile app often pales in comparison to that of their online banking platform. This is especially frustrating for younger customers, who are accustomed to using their phones for just about everything and expect their bank's mobile solution to be just as functional as its online platform or branch operations.

#### 3. Cybersecurity Breaches:

As the financial services industry has become increasingly tech-based, cybersecurity has become part of the cost of doing business. Cybersecurity threats such as malware, phishing, and Denial of Service attacks grow more sophisticated with each passing day, to the point where legacy systems implemented before the rise of Big Data



#### **MODEL ANSWERS**

TERM – DEC 2024 SYLLABUS - 2022

**SET - 1** 

# **PAPER – 20B**

# RISK MANAGEMENT IN BANKING AND INSURANCE

analytics are incapable of fending them off. As a result, banks' cybersecurity administrators often find themselves overwhelmed by false positives and spend a significant amount of time investigating things that aren't actual problems.

The good news is that although cyberattacks have become more sophisticated, so, too, has the technology used to combat them. Banks can now use artificial intelligence to perform rapid pattern recognition analytics across millions of questionable activities and filter out much of the noise. This technology can also be used to automate essential cybersecurity tasks, which is a major win given the ever-growing amount of banking data that lives in the cloud and that the existing pool of cybersecurity professionals is struggling to keep up with demand. Security Information and Event Management Software (SIEM) can also help security administrators stay on top of cybersecurity risk by helping them rapidly identify and resolve problems through the power of machine learning and analytics.

#### 4. Fraud & Identity Theft:

Similar to cybersecurity, banks' security admins are often overwhelmed by the number of false positives for fraud and identity theft. The only real difference between this bank risk and the last is that fraud and identity theft false positives are visible to customers and can interfere with customers' ability to complete transactions and, in some cases, cost them money. For this reason, false positives are a significant detriment to bank operations and detract from the overall customer experience.

Just as AI helps prevent cybersecurity breaches and false positives, it can also help with fraud and identity theft. Using AI, banks can detect potential incidents of fraud and identity theft to a far more refined degree than ever before. This has the dual benefit of preventing customers from experiencing the nightmare that is identity theft, as well as eliminating false positives. Again, this process can be automated, which streamlines security efforts and comes at huge cost savings to banks. Similarly, AI and automation can be used in conjunction to quickly detect and shut down instances of fraud, thereby protecting banks from financial exposure and reputational risk.

# 5. Inefficient Internal Processes:

Every year, banks need to look for ways to offset the increasing cost of operations to prevent liquidity risk or business risk. Automation and stringent practices for underwriting, servicing, and monitoring go a long way not only toward reducing costs, but also toward preventing operational risk, credit risk, and compliance risk. Automation, in particular, makes it easier for banks to achieve regulatory compliance. For example, with custom automation functions configured to meet requirements outlined in such regulations as the Beneficial Ownership Rule.

Another key way banks can save money is by utilizing cloud technology. Cloud computing can introduce efficiencies that lead to substantial cost savings, such as leveraging powerful analytics to cut costs on marketing and time to market for new products.

#### 6. Increasing Competition:

In today's world, traditional banks face increasing competition from internet banks hungry to take market share and tech companies such as Apple, Amazon, and Google that are breaking into the finery industry. This is especially problematic for local and



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

regional banks, which can't make up for lost customers by simply expanding their geography.

To counter this encroachment, traditional banks need to learn to interact with their customers in the same way that their non-traditional competitors do-a a shift that often requires them to rethink their customer engagement strategy from the ground up. The most efficient way to get started is for banks to refresh their existing offerings and rejuvenate their portals to meet rising customer expectations. From there, it's in a bank's best interest to partner with a consulting firm and systems integrator that can introduce new technologies that will enable it to meet different challenges and evolve its business.

- (b) International Bank has a Paid-up Capital of ₹ 100 Crores, Free Reserves of ₹ 300 Crores, Provisions and Contingencies Reserves of ₹ 200 Crores, Revaluation Reserve of ₹ 300 Crores, Perpetual Non-cumulative Preference Shares of ₹ 400 Crores, and Subordinated Debt of ₹ 300 Crores. The Risk-Weighted Assets for Credit and Operational Risk are ₹ 10,000 Crores and for Market Risk ₹ 4,000 Crores. Based on the above information, Identify the answer of the following questions:
  - i. What is the amount of Tier-1 Capital?
  - ii. What is the amount of Tier-2 capital?
  - iii. What is the amount of capital fund?
  - iv. What is the capital adequacy ratio of the bank?
  - v. What is the amount of minimum capital to support credit and operational risk?
  - vi. What is the amount of minimum Tier 1 and Tier 2 to support the Credit and Operational Risk?
  - vii. What is the amount of Tier-1 Capital fund, to support Market Risk?
- viii. What is the amount of Tier-2 capital fund, to support Market Risk [7]

#### Answer:

i.Tier-1 = Capital + Free Reserves + Perpetual Non-cumulative Preference Shares = ₹ 100 Crores + ₹ 300 Crores + ₹ 400 Crores = ₹ 800 Crores.

ii. Tier II = Provisions and Contingencies Reserves Maximum 1.25% of Risk Weighted Assets + Revaluation Reserve at 45% Discount + Subordinated Debts

= ₹ 175 Crores + ₹ 135 Crores (₹ 300 x 45%, at 55% Discount) + ₹ 300 Crores = ₹ 610 Crores.

iii. Tier-1 = Capital + Free Reserves + Perpetual Non-cumulative Preference Shares
= ₹ 100 Crores + ₹ 300 Crores + ₹ 400 Crores = ₹ 800 Crores.

Tier II = Provisions and Contingencies Reserves Maximum 1.25% of Risk Weighted Assets + Revaluation Reserve at 55% Discount + Subordinated Debts

= ₹175 Crores + ₹135 Crores (₹300 x 45%, at 55% Discount) + ₹300 Crores = ₹610Crores.

Total Capital Fund = ₹ 800 Crores + ₹ 610 Crores = ₹ 1,410 Crores.

iv.₹ 1,410 Crores / ₹ 14,000 Crores = 10.07%

v.₹ 10,000 Crores x 9% = ₹ 900 Crores.

vi.Tier 1 = ₹ 10,000 Crores x 4.5% = ₹ 450 Crores.

Tier-2 = ₹ 10,000 Crores x 4.5% = ₹ 450 Crores.

(Tier 2 capital fund cannot be more than Tier I)



# **MODEL ANSWERS**

**SET - 1** 

**TERM – DEC 2024** 

 $\mathbf{PAPER} - \mathbf{20B}$ 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

vii. Total Tier 1 - Minimum Tier 1 for Credit and Operational Risk = ₹ 800 Crores - ₹ 450 Crores = ₹ 350 Crores.

viii.Total Tier 2 - Min. Tier 2 for Credit and Operational Risk = ₹ 610 Crores - ₹ 450 Crores = ₹ 160 Crores.

# 3. (a) Discuss the "Principles for Sound Liquidity Risk Management and Supervision" published by the Basel Committee on Banking Supervision (BCBS) in September 2008. [7]

#### Answer:

The broad principles for sound liquidity risk management by banks as envisaged by BCBS are as under:

| BCBS's Fi   | undamental principle for the management and supervision of liquidity risk:   |
|-------------|--|
| Principle 1 | A bank is responsible for the sound management of liquidity risk. A<br>bank should establish a robust liquidity risk management framework<br>that ensures it maintains sufficient liquidity, including a cushion of<br>unencumbered, high quality liquid assets, to withstand a range of stress<br>events, including those involving the loss or impairment of both<br>unsecured and secured funding sources. Supervisors should assess the<br>adequacy of both a bank's liquidity risk management framework and<br>its liquidity position and should take prompt action if a bank is<br>deficient in either area in order to protect depositors and to limit<br>potential damage to the financial system. |
|             | Governance of liquidity risk management:   |
| Principle 2 | A bank should clearly articulate a liquidity risk tolerance that is<br>appropriate for its business strategy and its role in the financial<br>system.  |
| Principle 3 | Senior management should develop a strategy, policies and practices<br>to manage liquidity risk in accordance with the risk tolerance and to<br>ensure that the bank maintains sufficient liquidity. Senior management<br>should continuously review information on the bank's liquidity<br>developments and report to the board of directors on a regular basis. A<br>bank's board of directors should review and approve the strategy,<br>policies and practices related to the management of liquidity at least<br>annually and ensure that senior management manages liquidity risk<br>effectively.  |
| Principle 4 | A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance  |



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

|   | sheet), thereby aligning the risk-taking incentives of individual   |  |  |  |
|---|---|--|--|--|
|   | business lines with the liquidity risk exposures their activities create  |  |  |  |
|   | for the bank as a whole.  |  |  |  |
| Measurement and management of liquidity risk: |   |  |  |  |
| Principle 5                                   | A bank should have a sound process for identifying, measuring,<br>monitoring and controlling liquidity risk. This process should include<br>a robust framework for comprehensively projecting cash flows arising<br>from assets, liabilities and off-balance sheet items over an appropriate<br>set of time horizons.   |  |  |  |
| Principle 6                                   | A bank should actively monitor and control liquidity risk exposures<br>and funding needs within and across legal entities, business lines and<br>currencies, taking into account legal, regulatory and operational<br>limitations to the transferability of liquidity.  |  |  |  |
| Principle 7                                   | A bank should establish a funding strategy that provides effective<br>diversification in the sources and tenor of funding. It should maintain<br>an ongoing presence in its chosen funding markets and strong<br>relationships with funds providers to promote effective diversification<br>of funding sources. A bank should regularly gauge its capacity to raise<br>funds quickly from each source. It should identify the main factors that<br>affect its ability to raise funds and monitor those factors closely to<br>ensure that estimates of fund-raising capacity remain valid. |  |  |  |
| Principle 8                                   | A bank should actively manage its intraday liquidity positions and<br>risks to meet payment and settlement obligations on a timely basis<br>under both normal and stressed conditions and thus contribute to the<br>smooth functioning of payment and settlement systems.   |  |  |  |
| Principle 9                                   | A bank should actively manage its collateral positions, differentiating<br>between encumbered and unencumbered assets. A bank should<br>monitor the legal entity and physical location where collateral is held<br>and how it may be mobilised in a timely manner.  |  |  |  |
| Principle 10                                  | A bank should conduct stress tests on a regular basis for a variety of<br>short-term and protracted institution-specific and market-wide stress<br>scenarios (individually and in combination) to identify sources of<br>potential liquidity strain and to ensure that current exposures remain in<br>accordance with a bank's established liquidity risk tolerance. A bank<br>should use stress test outcomes to adjust its liquidity risk management<br>strategies, policies, and positions and to develop effective contingency<br>plans.  |  |  |  |



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

| Principle 11 | A bank should have a formal contingency funding plan (CFP) that<br>clearly sets out the strategies for addressing liquidity shortfalls in<br>emergency situations. A CFP should outline policies to manage a range<br>of stress environments, establish clear lines of responsibility, include<br>clear invocation and escalation procedures and be regularly tested and<br>updated to ensure that it is operationally robust. |
|--------------|--|
| Principle 12 | A bank should maintain a cushion of unencumbered, high quality<br>liquid assets to be held as insurance against a range of liquidity stress<br>scenarios, including those that involve the loss or impairment of<br>unsecured and typically available secured funding sources. There<br>should be no legal, regulatory or operational impediment to using these<br>assets to obtain funding.                                   |

# (b) Analyze the Loan repudiation & loan rescheduling. Discuss the reasons why it is easier to reschedule debt in the form of bank loans than bonds, especially in the context of post-war lending in international financial markets [7]

#### Answer:

Loan repudiation refers to a situation of outright default where the borrower refuses to make any further payments of interest and principal. In contrast, loan rescheduling refers to a temporary postponement of payments during which time new terms and conditions are agreed upon between the borrower and lenders. In most cases, these new terms are structured to make it easier for the borrower to repay.

The reasons why it is easier to reschedule debt in the form of bank loans than bonds, especially in the context of post-war lending in international financial markets, include:

(A) Loans usually are made by a small group (syndicate) of banks as opposed to bonds that are held by individuals and institutions that are geographically dispersed. Even though bondholders usually appoint trustees to look after their interests, it has proven to be much more difficult to approve renegotiation agreements with bondholders in contrast to bank syndicates.

(B) The group of banks that dominate lending in international markets is limited and hence able to form a cohesive group. This enables them to act in a unified manner against potential defaults by countries.

(C) Many international loans, especially those made in the post-war period, contain cross-default clauses, which make the cost of default very expensive to borrowers. Defaulting on a loan would trigger default clauses on all loans with such clauses, preventing borrowers from selectively defaulting on a few loans.

(D) In the case of post-war loans, governments were reluctant to allow banks to fail. This meant that they would also be actively involved in the rescheduling process by

**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

[7]

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

either directly providing subsidies to prevent repudiations or providing incentives to international agencies like the IMF and World Bank to provide other forms of grants and aid.

# 4. (a) Demonstrate the types of letter of credit.

# Answer:

There are multiple kinds of letters of credit, each of which is best used in certain situations.

- A commercial letter of credit offers direct payment from the bank to the beneficiaries receiving payments.
- A revolving letter of credit lets the customer pull money from the bank in an unlimited number of transactions within a specific time frame.
- A traveller's letter of credit promises that the bank will accept drafts through accepted foreign banks.
- A confirmed letter of credit includes a second bank that guarantees the letter of credit. This bank is usually the seller's bank and is known as the confirming bank. In the case that both the issuing bank and the customer can't make payments, the confirming bank will step in to make payments. This type of arrangement is usually requested by the issuing bank in international deals.
- A standby letter of credit works as a secondary payment tool. A bank issues a standby letter of credit to show that a customer can make payments under the terms of the agreement. Both parties expect to never have to draw on this type of letter of credit; the letter is simply there to provide additional support for the customer's financial standing. However, if the customer doesn't meet their obligation, the beneficiary can provide evidence and draw on the credit.
- Standby letters of credit come with expiration dates and are used to back up monetary obligations, ensure that an advanced payment is refunded, and assure that a sales contract is completed. These types of letters are typically used to strengthen the creditworthiness of a customer. In most cases, a standby letter of credit is never actually used, especially if the customer makes payments according to the terms set by the seller.

However, if the seller wants to be paid directly and the customer can't pay, the seller can provide evidence and draw on the credit. In domestic situations, the Uniform Commercial Code states that banks have three business days to accept the evidence that payment hasn't been made to then honour the seller's draw on the credit.

# (b) International Banks provided following information about its-NPA account as on Mar 31, 2024.

Total loans ₹ 40,000 Crores.

**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

PAPER - 20B

Standard Accounts ₹38,000 Crores including Direct Agriculture and SME loans of ₹10,000 Crores.

Sub-standard ₹ 800 Crores and out of which unsecured Sub-standard ₹200 Crores. Doubtful up to 1 Year ₹ 800 Crores and Doubtful above 1 year up to 3 years ₹200 Crores and Doubtful above 3 Years ₹120 Crores and Loss Accounts ₹ 80 Crores. All doubtful loans are fully secured.

Based on the above information calculate the following:

(i) Provision on general accounts.

(ii) The amount of provision on sub-standard loan accounts.

(iii) The amount of provision on doubtful loan accounts.

# [7]

#### Answer:

(i) Provision on General accounts =  $₹28,000 \times 0.4\% = ₹112$  Crores + Provision on direct agriculture and SME accounts =  $₹10,000 \times 0.25\% = 25$  Crores. Total provision = ₹112 + ₹25 = ₹127 Crores

Total provision =  $\gtrless 112 + \gtrless 25 = \gtrless 137$  Crores.

(ii) Secured Sub-standard accounts = ₹  $600 \times 15\%$  = ₹90 Crores + Unsecured Sub-standard

₹ 200 × 25% = ₹ 50 Crores.

Total Provision = ₹140 Crores

(iii) Doubtful Category-1

= ₹ 800 x 25% = ₹200 Crores + Doubtful Category -2 = ₹ 200 × 40%

= ₹ 80Crores + Doubtful Category -3 = ₹ 120 × 100 = ₹ 120 Crores

Total provision = ₹200 + ₹ 80 + ₹ 120 = ₹400 Crores

- 5. (a) International Bank has paid up capital of ₹400 Crores, free reserves of ₹1200 Crores, provisions and contingencies reserves ₹800 Crores, Revaluation Reserve of ₹1200 Crores, Perpetual non-Cumulative Preference Shares of ₹1600 Crores, and Subordinated Debt of ₹1200 Crores. The Risk Weighted Assets for Credit and Operational Risk are ₹40,000 Crores and for-Market Risk ₹16,000 Crores. Based on the above information, calculate the following:
  - (i) The amount of Tier-1 capital.
  - (ii) The amount of Tier-2 capital.
  - (iii) The capital adequacy ratio of the bank.

[7]

#### Answer:

(i) Tier-1 = Capital + Free Reserves + Perpetual non-cumulative preference shares
= ₹400 Crores + ₹1200 Crores + ₹1600 Crores =- ₹3,200 Crores.

(ii) Tier II = (Provisions and Contingencies Reserves Maximum 1.25% of Risk Weighted

# **MODEL ANSWERS**

**TERM – DEC 2024** 

**SET - 1** 

# $\mathbf{PAPER} - \mathbf{20B}$

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

Assets) +(Revaluation Reserve at 55% Discount) + (Subordinated Debts)

= ₹700 Crores + ₹540 Crores (₹1200 Crores x 45%, at 55% discount) + ₹1200Crores

= ₹2,440 Crores.

(iii) Capital adequacy ratio of the bank:

= ₹5640Crores / ₹56,000 Crores = 10.07%

# (b) Explain the Features of Insurance.

#### Answer:

Insurance is a cooperative device to spread the loss caused by a particular risk over some persons exposed to it and who agree to insure themselves against the risk.

Following are the Features, which are generally observed in life, marine, fire, and general insurances:

i. Sharing of Risk:

Insurance is a device to share the financial losses which might befall an individual or his family in the happening of a specified event.

The event may be the death of a breadwinner to the family in the case of life insurance, marine-perils in marine insurance, fire in fire insurance, and other certain events in general insurance, e.g., theft in burglary insurance, accident in motor insurance, etc. The loss arising from these events, if insured, is shared by all the insured in the form of a premium.

ii. Co-operative Device:

The most important feature of every insurance plan is the cooperation of a large number of persons who, in effect, agree to share the financial loss arising due to a particular risk that is insured.

Such a group of persons may be brought together voluntarily or through publicity or solicitation of the agents.

An insurer would be unable to compensate for all the losses from his capital. So, by insuring or underwriting a large number of persons, he can pay the amount of loss.

Like all cooperative devices, there is no compulsion here on anybody to purchase the insurance policy.

iii. Value of Risk:

The risk is evaluated before insuring to charge the share of an insured, herein called, consideration or premium. There are several methods of evaluation of risks. If there is an expectation of more loss, a higher premium may be charged. So, the probability of loss is calculated at the time of insurance.

iv. Payment at Contingency:

The payment is made at a certain contingency insured. If the contingency occurs, payment is made. Since the life insurance contract is a contract of certainty, because the contingency, the death, or the expiry of the term will certainly occur, the payment is certain. The contingency is that the fire or the marine perils, etc., may or may not



[7]



SET - 1

**TERM – DEC 2024** 

**PAPER – 20B** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

occur in other insurance contracts.

So, if the contingency occurs, payment is made. Otherwise, no amount is given to the policy-holder. Similarly, in certain policies, payment is not certain due to the uncertainty of a particular contingency within a particular period.

For example, in term insurance, payment is made only when the assured death occurs within the specified term, maybe one or two years.

Similarly, in Pure Endowment, payment is made only at the survival of the insured at the expiry of the period.

v. Payment of Fortuitous Losses:

Another characteristic of insurance is the payment of fortuitous losses. A fortuitous loss is unforeseen and unexpected and occurs as a result of chance. In other words, the loss must be accidental.

The law of large numbers is based on the assumption that losses are accidental and occur randomly.

For example, a person may slip on an icy sidewalk and break a leg. The loss would be fortuitous. Insurance policies do not cover intentional issues.

vi. Amount of Payment:

The amount of payment depends on the value of loss due to the particular insured risk provided insurance is there up to that amount. In life insurance, the purpose is not to make good the financial loss suffered. The insurer promises to pay a fixed sum on the happening of an event.

If the event or the contingency takes place, the payment does fail due if the policy is valid and in force at the time of the event, like property insurance, the dependents will not be required to prove the occurring loss and the amount of loss. It is immaterial in life insurance what was the amount of loss was at the time of contingency. But in the property and general insurances, the amount of loss and the happening of loss are required to be proved.

vii. A large number of Insured Persons:

To spread the loss immediately, smoothly, and cheaply, a large number of persons should be insured. The cooperation of a small number of persons may also be insurance, but it will be limited to the smaller area.

The cost of insurance for each member may be higher. So, it may be unmarketable. Therefore, to make the insurance cheaper, it is essential to ensure many persons or properties because the lessor would be the cost of insurance, so the lower would be the premium.

# 6. (a) Discuss the disqualifications of an Individual Insurance Agent. [7]

# Answer:

As per Section 42 of the Insurance Act, 193, an insurer may appoint any person to act as insurance agent for the purpose of soliciting and procuring insurance business. No person shall act as an insurance agent for more than one life insurer, one general

**MODEL ANSWERS** 

**PAPER – 20B** 

**TERM – DEC 2024** 

**SET - 1** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

insurer, and one health insurer at a time. Provided that the Authority shall, while framing regulations, ensure that no conflict of interest is allowed to arise for any agent in representing two or more insurers for whom he may be an agent.

Following are the disqualifications of an Insurance Agent:

- 1. that the person is a minor;
- 2. that he is found to be of unsound mind by a court of competent jurisdiction;
- 3. that he has been found guilty of criminal misappropriation or criminal breach of trust or cheating or forgery or an abetment of or attempt to commit any such offence by a court of competent jurisdiction; Provided that where at least five years have elapsed since the completion of the sentence imposed on any person in respect of any such offence, the Authority shall ordinarily declare in respect of such person that his conviction shall cease to operate as a disqualification under this clause;
- 4. that in the course of any judicial proceeding relating to any policy of insurance or the winding up of an insurer or in the course of an investigation of the affairs of an insurer it has been found that he has been guilty of or has knowingly participated in or connived at any fraud, dishonesty or misrepresentation against an insurer or insured;
- 5. that he does not possess the requisite qualifications or practical training or passed the examination, as may be specified by the regulations;
- 6. that he has not passed such examination as may be specified by the regulations;
- 7. that he has violated the code of conduct as may be specified by the regulations.

# (b) Discuss the Types of Postal Life Insurance Schemes.

# Answer:

There are seven different life insurance policies under PLI:

1) Whole Life Insurance (Suraksha):

The whole life insurance scheme from Postal Life Insurance has the following features and requirements:

- Scheme: Assured amount + accrued bonus is paid to nominee, assignee or legal heir, after the insured expires.
- Age Eligibility: Minimum:19 years Maximum: 55 years
- Policy Conversion: Policy can be converted to an Endowment Assurance policy after completion of a year and before the insured turns 57 years of age.
- Minimum Sum assured: ₹ 20,000
- Maximum Sum Assured: ₹ 50 lakhs
- Loan Facility: Available after four years of completion
- Policy Surrender: Policy can be surrendered after three years of completion.

Policyholders will not be eligible for the bonus if assigned or loaned five years before completion, else proportionate bonus on the reduced amount assured can be accrued if the policy is assigned for a loan or surrendered.

[7]



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

PAPER – 20B

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

- Medical Examination: Mandatory
- Premiums Payable: The premiums are calculated based on factors such as age of maturity and age of entry and hence, variable for the applicant.
- 2) Endowment Assurance (Santosh):

The endowment assurance scheme from Postal Life Insurance has the following features and requirements:

- Scheme: Assured amount + accrued bonus is paid to proponent when he or she attains the pre-decided age of maturity. The sum amount insured and bonus is payable to the assigned, nominee or legal heir in case of unprecedented death.
- Age Eligibility: Minimum: 19 years Maximum: 50 years
- Policy Conversion: Policy can be converted to any other Endowment Assurance policy under the rules and regulations of PLI.
- Minimum Sum assured: ₹ 20,000
- Maximum Sum Assured: ₹ 50 lakhs.
- Loan Facility: Available after four years of completion
- Policy Surrender: Policy can be surrendered after three years of completion. The policy will not be eligible for the bonus if assigned or loaned five years before completion else a proportionate bonus on the reduced amount assured can be accrued if the policy is assigned for a loan or surrendered.
- Medical Examination: mandatory.
- Premiums Payable: The premiums are calculated based on factors such as age of maturity and age of entry and hence, variable for the applicant.
- 3) Convertible Whole Life Insurance (Suvidha):

The convertible whole life insurance scheme from Postal Life Insurance has the following features and requirements:

- Scheme: Assured amount + accrued bonus is paid to proponent when he or she attains the pre-decided age of maturity. The sum amount insured and bonus is payable to the assigned, nominee or legal heir in case of unprecedented death.
- Age Eligibility: Minimum:19 years Maximum: 55 years
- Policy Conversion: Policy can be converted to Endowment Assurance after five years but must not exceed55 years. If the option for conversion is not used, the policy will automatically turn into a Whole Life Insurance by default.
- Minimum Sum assured: ₹ 20,000
- Maximum Sum Assured: ₹ 50 lakhs
- Loan Facility: Available after three years of completion
- Policy Surrender: Policy can be surrendered after three years of completion. The policy will not be eligible for the bonus if assigned or loaned five years before completion, else a proportionate bonus on the reduced amount assured can be accrued if the policy is assigned for a loan or surrendered.
- Medical Examination: mandatory



#### **MODEL ANSWERS**

**TERM – DEC 2024** 

**SET - 1** 

#### PAPER – 20B

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

- Premiums Payable: The premium amount is calculated on factors that include age of maturity and age of entry and hence, variable for the applicant.
- 4) Anticipated Endowment Assurance (Sumangal):

The anticipated endowment assurance scheme from Postal Life Insurance is best suited for people who expect periodical returns, and has the following features and requirements:

- Scheme: Money back policy
- 15 Years Term Policy: 20% of benefits are paid post six years 20% of the assured sum, nine years 20% of the assured sum, 12 years 20% of the assured sum and 15 years 40% of the assured sum + assured bonus.
- 20 Years Term Policy: Benefits are paid post eight years 20% of the assured sum, 12 years 20% of the assured sum, 16 years 20% of the assured sum and 20 years 40% of the assured sum + assured bonus
- Maximum Sum Assured: ₹ 50 lakhs.
- Such payments, in the event of unexpected death of the insured, will not be taken into consideration and the full sum assured + accrued bonus is payable to the assignee or legal heir.
- Medical Examination: mandatory.
- Premiums Payable: The calculation premium is based on factors that include age of maturity and age of entry and hence, variable for the applicant.
- 5) Joint Life Endowment Assurance (Yugal Suraksha):

The joint life assurance from Postal Life Insurance requires any one of the spouses to be eligible for PLI policies. The scheme has the following features and requirements:

- Scheme: Both spouses are covered to the extent of sum assured + accrued bonus with only one premium.
- Age Eligibility: Minimum: 19 years Maximum: 55 years
- Policy Conversion: Policy can be converted to any other Endowment Assurance policy under the rules and regulations of PLI.
- Minimum Sum assured: ₹ 20,000/-.
- Maximum Sum Assured: ₹ 50 lakhs.
- Loan Facility: Available after three years of completion
- Policy Surrender: Policy can be surrendered after three years of completion. The policy will not be eligible for bonus if assigned or loaned five years before of completion else proportionate bonus on the reduced amount assured can be accrued if the policy is assigned for loan or surrendered.
- Medical Examination: mandatory
- Premiums Payable: The premium amount is calculated on factors that include age of maturity and age of entry and hence, variable for the applicant.
- 6) Scheme for Physically Handicapped Person:



**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

**PAPER – 20B** 

SYLLABUS - 2022

# RISK MANAGEMENT IN BANKING AND INSURANCE

Any of the above-mentioned life insurance policies can be availed by physically handicapped applicants, under this scheme. However, premium prices are dependable on the nature and extent of handicap which will be determined through the mandatory medical examination.

7) Children Policy (Bal Jeevan Bima):

There is a separate policy for the children of policyholders which can be taken. Maximum two children in a family are eligible for this scheme:

- Main Policyholder Age Eligibility: Maximum: 45 years
- Children Age Eligibility: Minimum: five years Maximum: 20 years
- Maximum Sum Assured: Rs. 3 lakh or equivalent to the sum assured of the main policy holder whichever is less
- Loan Facility: Not available
- No premium is payable, in case death of main policy holder and full sum assured + accrued bonus paid after the completion of the policy term.
- Main policyholder is responsible for payments for the Children Policy.
- No mandatory medical examination required for child
- Policy bonus calculated at the rate applicable to Endowment Policy. The POIF Rules applicable at the time shall be applicable to Children Policy.

# 7. (a) Examine the three major risk groups that are important to non-life insurance companies. [7]

#### Answer:

The three major risk groups that are important to non-life insurance companies are:

- 1) Premium Risk: Premium related risk encompasses the risk in the process of product definition, pricing, underwriting, and selling either operating individually or collectively. Given below are some of the underwriting risks facing the insurance companies and the list is by no means exhaustive.
  - Flawed Product definition.
  - Product not be appropriate for the market.
  - Pricing of the product might not be correct.
  - Unfavourable Terms and conditions of the product.
  - Product might not be competitive.
  - Lenience in underwriting.
  - Adverse selection.
  - Inappropriate discounts.
  - Change in market, economy, regulation and judicial decisions and
  - Inability to reach the project sales volume.
  - Inadequate reinsurance.
  - Inability to get reinsurance cover.

**MODEL ANSWERS** 

**TERM – DEC 2024** 

**SET - 1** 

# **PAPER – 20B**

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

- 2) Claims Risk: Claims risks are those risks involved in the claims process such as claim notification, adjudication, settlement, reserving, litigation and recovery consisting of:
  - Increased Severity.
  - Frequency of claims high above the expectation.
  - Increase in fraudulent claims.
  - Reporting delays.
  - Judicial decision adversely impacting the claims.
  - Latent claims.
  - Catastrophes.
  - Failure of reinsurers.
  - Accumulation of risk.
  - Expense risk.
- 3) Investment Risk: Investment risk is the risk of an adverse movement in the value of a general insurer's assets or off-balance sheet exposures which includes
  - Liquidity risk.
  - Market risk.
  - Credit risk.
  - Cash flow.
  - Security of capital.

Insurance companies manage these risks by:

- Diversification by country, currency, industry, classes, assets.
- Reinsurance.
- Matching and hedging of assets.
- Good management information system and
- Internal control mechanisms.

# (b) Demonstrate the benefits to managing risks in Insurance.

[7]

#### Answer:

Risk management provides a clear and structured approach to identifying risks. Having a clear understanding of all risks allows an organization to measure and prioritize them and take the appropriate actions to reduce losses. Risk management has other benefits for an organization, including:

- Saving Resources: Time, assets, income, property and people are all valuable resources that can be saved if fewer claims occur.
- Protecting the reputation and public image of the organization.
- Preventing or reducing legal liability and increasing the stability of operations.
- Protecting people from harm.
- Protecting the environment.
- Enhancing the ability to prepare for various circumstances.
- Reducing liabilities.
- Assisting in clearly defining insurance needs.



#### **MODEL ANSWERS**

**TERM – DEC 2024** 

**SET - 1** 

PAPER - 20B

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

An effective risk management practice does not eliminate risks. However, having an effective and operational risk management practice shows an insurer that organization is committed to loss reduction or prevention. It makes organization a better risk to insure. Role of insurance in risk management Insurance is a valuable risk-financing tool. Few organizations have the reserves or funds necessary to take on the risk themselves and pay the total costs following a loss. Purchasing insurance, however, is not risk management. A thorough and thoughtful risk management plan is the commitment to prevent harm. Risk management also addresses many risks that are not insurable, including brand integrity, potential loss of tax-exempt status for volunteer groups, public goodwill and continuing donor support.

8. (a)As per RBI guidelines on ALM, 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 term deposits are to be planed respective maturity buckets.

Capital: ₹ 1,180 Crores.

Reserves: ₹ 12,000 Crores.

Current account: ₹ 1,000 Crores.

Saving Bank ₹ 4,000 Crores.

Term deposits 1-month maturity bucket: ₹ 400 Crores.

1 to less than 3 months maturity bucket: ₹ 800 Crores.

3 months to less than 6 months maturity bucket: ₹ 1,200 Crores.

6 months to less than 12 months maturity bucket: ₹ 2,000 Crores.

1 year to less than 3 years maturity bucket: ₹ 1,200 Crores.

3 years to less than 5 years maturity bucket: ₹ 600 Crores.

And Above 5 years maturity bucket: ₹ 800 Crores.

Borrowing from RBI: ₹ 400 Crores.

Based on the given information, answer the following questions:

- i. What is the amount of current account deposit that can be placed in 14 days bucket?
- ii. What is the amount of saving bank deposit that can be placed in a 1-3 years bucket?
- iii. What is the total amount of term deposit that will be placed in various maturity buckets up to less than 12 months? [7]

#### Answer:

- i. Volatile portion of 15% to be placed in this bucket. Hence = ₹ 1,000 Crores x 15% = ₹150 Crores.
- ii. Non-volatile portion of 90% to be placed in this bucket. Hence = ₹ 4,000 Crores  $\times$  90% = ₹3,600 Crores.
- iii. ₹400 Crores + ₹ 800 Crores + ₹ 1,200 Crores + ₹ 2,000 Crores = ₹ 4,400 Crores.



# **MODEL ANSWERS**

**PAPER – 20B** 

**TERM – DEC 2024** 

**SET - 1** 

SYLLABUS - 2022

# **RISK MANAGEMENT IN BANKING AND INSURANCE**

- (b) The Term, whole life, endowment, annuity policies or the combination of policies are available in the market. The best policy is the one that best meets your financial needs. You have to select the policy according to your needs. Suggest suitable life insurance policies for the given situations:
  - (i) You are at the age of 25. You just joined an organization. You are recently married. Now you cannot spend more on life insurance.
  - (ii) You are the only earning member in your family. You purchased a flat by taking a loan from housing finance. As long as you are there you can pay EMIs regularly. You want to retain the house for your family members even in your absence.
  - (iii) You are at the beginning of career; you want to combine both insurance and saving. But the combination of this saving and insurance is costly. Right now, you cannot invest much, having dependents and you want to invest later after settling in the career.

#### Answer:

- (i) For these situations, the suggested best policy is Term Insurance Policy. These plans offer life insurance cover for the specific number of years, at least cost. The premium of Term Insurance is comparatively low at the age of 25. Since the entire premium goes towards the cost of insurance, there is only risk cover and no saving element is involved.
- (ii) The best policy for this situation is the Mortgage Redemption Insurance policy. These plans offer life insurance cover for the specific number of years like till the loan is cleared (or on death, an outstanding loan is covered) at the least cost.
- (iii) The best policy for this situation is the Convertible Term insurance policy. This plan offers life insurance cover for the specific number of years, and at the same time it also facilitates to convert this policy into endowment policy (when your income increases) which includes saving element.