

SET - 2

MODEL ANSWERS

TERM - DECEMBER 2024

PAPER – 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)
•	(a)	Choose the correct option: $[10x2 = 20]$
	(i)	The risk that arises from the possibility of non-payment of loans by the borrowers is known as-
		a. Credit Risk
		b. Operational Risk
		c. Market Risk
		d. Liquidity Risk
	(ii)	risk is the potential loss due to changes in the value of a bank's assets or liabilities
		resulting from exchange rate fluctuations.
		a. Interest rate
		b. Equity.
		c. Foreign exchange.
		d. Commodity.
	(iii)	To hedge the interest rate risk on \$4 million of Treasury bonds with \$100,000 futures contracts,
		you would need to purchase-
		a. 4 contracts
		b. 20 contracts
		c. 25 contracts
		d. 40 contracts
	(iv)	The model that combines five financial ratios using reported accounting information and equity
	()	values to produce an objective measure of borrower's financial health is
		a. Altman's Z Score.
		b. 'Credit Metrics'.
		c. Credit Risk+.
		d. None of the above.
	(v)	Which product offered by insurance companies that, unlike a pure insurance policy, gives
	(,)	investors both insurance and investment under a single integrated plan?
		a. Micro Insurance Plans
		b. Term Insurance Plans
		c. Endowment Plans
		d. Unit-linked insurance plan
	(z-i)	When was life insurance sector nationalized?
	(vi)	when was life insurance sector nationalized?

b. 1956c. 1986d. 1982



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

- (vii) Insurance covers:
 - a. Protect assets
 - b. Prevents loss
 - c. Reduces the impact of loss
 - d. Insurances immortality
- (viii) The is formed with four subsidiary companies.
 - a. Life insurance Corporation of India
 - b. ICICI Prudential Life Insurance Company
 - c. General Insurance Corporation of India
 - d. Bajaj Allianz General Insurance Company
- (ix) ____ risks happen within a stable environment and are constant over an observed period of time.
 - a. Speculative
 - b. Pure
 - c. Dynamic
 - d. Static
- (x) _____ policy matures on the assured death or on his attainment of a particular age whichever occurs earlier.
 - a. Endowment
 - b. Money back
 - c. Joint life
 - d. Single premium

Answers:

i	ii	iii	iv	v	vi	vii	viii	ix	X
a	С	d	a	d	b	c	c	d	a

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

[5x2 = 10]

International Bank has come out with a policy for its branches for acceptance of deposits and granting of advances. its branches have taken deposits and allowed loans as under:

- (i) One of its branches accepted a deposit of ₹10 Lakhs, which is to double in 10 years. These funds have been invested by the bank in a 3 Years Bond carrying an interest rate of 13%. Which of the following kind of risks the bank is facing?
 - a. Yield Curve Risk.
 - b. Embedded Options Risk.
 - c. Basis Risk.



SET - 2

MODEL ANSWERS

TERM - DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

- d. Reinvestment Risk.
- (ii) The deposits, as well as advances, are linked by the bank to the floating rate. The bank has been facing:
 - a. Real Interest Rate Risk.
 - b. Basis Risk.
 - c. Re-investment Risk.
 - d. Volatility Risk.
- (iii) A branch has given a loan out of deposits at a floating rate. The rate of interest on deposit has been linked by the bank with 91 days treasury bill rate and for the loan, it is linked to 364 days treasury bill rate. The risk from such a situation is called:
 - a. Gap or Mismatch Risk.
 - b. Interest Risk.
 - c. Yield Curve Risk.
 - d. Basis Risk.
- (iv) The bank has advised its branches that while sanctioning a term loan, they must put a condition that premature payment will not be accepted in any circumstances. By putting this condition, the bank has avoided which type of interest rate risk?
 - a. Yield Curve Risk.
 - b. Embedded Option Risk
 - c. Mismatch Risk.
 - d. Basis Risk.
- (v) The depositors at times, tend to withdraw the deposits before maturity, which leads to:
 - a. Yield Curve Risk.
 - b. Embedded Options Risk.
 - c. Basis Risk.
 - d. Reinvestment Risk.

Answers:

i	i ii		iv	v	
d	b	c	b	b	



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

SECTION-B

(Answer any five questions out of seven questions given. Each question carries 14 marks.)

 $[5 \times 14 = 70]$

- 2. (a) Explain the broad parameters of "Risk Management Function" which Top Management should consider in the Banking Sector. [7]
 - (b) Explain the different types of Market Risks.

[7]

Answer:

(a) Banks in the process of financial intermediation are confronted with various kinds of financial and nonfinancial risks viz., credit, interest rate, foreign exchange rate, liquidity, equity price, commodity price, legal, regulatory, reputational, operational, etc. These risks are highly interdependent and events that affect one area of risk can have ramifications for a range of other risk categories. Thus, top management of banks should attach considerable importance to improve the ability to identify, measure, monitor and control the overall level of risks undertaken.

The broad parameters of risk management function should encompass:

- (i) Organisational structure;
- (ii) Comprehensive risk measurement approach;
- (iii) Risk management policies approved by the Board which should be consistent with the broader business strategies, capital strength, management expertise and overall willingness to assume risk;
- (iv) Guidelines and other parameters used to govern risk taking including detailed structure of prudential limits;
- (v) Strong MIS for reporting, monitoring and controlling risks;
- (vi) Well laid out procedures, effective control and comprehensive risk reporting framework;
- (vii) Separate risk management framework independent of operational Departments and with clear delineation of levels of responsibility for management of risk; and
- (viii) Periodical review and evaluation
- (b) Market risk is the risk associated with losses due to unfavourable price movements that affect the market as a whole. These markets range from commodities to cryptocurrencies, any market carries risk. Because market risk affects the entire market, and not specific assets, it can't be avoided through portfolio diversification.

Different Types of Market Risk:

1) Interest Rate Risk:

Interest rate risk arises from unanticipated fluctuations in the interest rates due to monetary policy measures undertaken by the Central Bank. The yields offered on securities across all markets must get equalized in the long run by adjustment of market demand and supply of the



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER – 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

instrument. Hence, an increase in the rates would cause a fall in the security price. It is primarily associated with fixed-income securities.

2) Commodity Risk:

Certain commodities, such as oil or food grain, are necessities for any economy and complement the production process of many goods due to their utilization as indirect inputs. Any volatility in the prices of the commodities trickles down to affect the performance of the entire market, often causing a supply-side crisis.

Such shocks result in a decline in not only stock prices and performance-based dividends, but also reduce a company's ability to honour the value of the principal itself.

3) Currency Risk:

Currency risk is also known as exchange rate risk. It refers to the possibility of a decline in the value of the return accruing to an investor owing to the depreciation of the value of the domestic currency. The risk is usually taken into consideration when an international investment is being made.

To mitigate the risk of losing out on foreign investment, many emerging market economies maintain high foreign exchange reserves to ensure that any possible depreciation can be negated by selling the reserves.

4) Country Risk:

Many macro variables that are outside the control of a financial market can impact the level of return due to an investment. They include the degree of political stability, level of fiscal deficit, proneness to natural disasters, regulatory environment, ease of doing business, etc. The degree of risk associated with such factors must be taken into consideration while making an international investment decision.

- 3. (a) Examine the ideal organizational setup for liquidity risk management in a bank, and analyze how strong commitment to integrating basic operations and strategic decision-making with risk management from top management contributes to its effectiveness. [7]
 - (b) Discuss the difference between Debt Rescheduling and Debt Repudiation. [7]

Answer:

(a) The Reserve Bank had issued guidelines on Asset Liability Management (ALM) system, covering inter alia liquidity risk management system, in February 1999 and October 2007. Successful implementation of any risk management process has to emanate from the top management in the bank with the demonstration of its strong commitment to integrate basic operations and strategic decision making with risk management. Ideally, the organisational set up for liquidity risk management should be as under:

The Board of Directors (BOD):

The BOD should have the overall responsibility for management of liquidity risk. The Board should decide the strategy, policies and procedures of the bank to manage liquidity risk in accordance with the liquidity risk 3 tolerance/limits. The risk tolerance should be clearly understood at all levels of management. The Board should also ensure that it understands the nature of the liquidity.

The Risk Management Committee:

The Risk Management Committee, which reports to the Board, consisting of Chief Executive Officer (CEO) Chairman and Managing Director (CMD) and heads of credit, market and operational risk management committee should be responsible for evaluating the overall risks faced by the bank



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

including liquidity risk. The potential interaction of liquidity risk with other risks should also be included in the risks addressed by the risk management committee.

The Asset-Liability Management Committee (ALCO):

The Asset-Liability Management Committee (ALCO) consisting of the bank's top management should be responsible for ensuring adherence to the risk tolerance / limits set by the Board as well as implementing the liquidity risk management strategy of the bank in line with bank's decided risk management objectives and risk tolerance.

The Asset Liability Management (ALM) Support Group:

The ALM Support Group consisting of operating staff should be responsible for analysing, monitoring and reporting the liquidity risk profile to the ALCO. The group should also prepare forecasts (simulations) showing the effect of various possible changes in market conditions on the bank's liquidity position and recommend action needed to be taken to maintain the liquidity position/adhere to ban's internal limits.

(b) Debt Repudiation refers to a situation of outright default where the borrower refuses to make any further payments of interest and principal. In contrast, debt rescheduling refers to 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

Debt Rescheduling is typically pursued as a solution to financial distress or temporary difficulties in meeting debt obligations. It aims to provide the borrower with a revised repayment plan that is more manageable, allowing them to repay their debt over an extended period. Debt repudiation can occur for various reasons, such as the borrower considering the debt to be illegitimate, unfair, or unsustainable. It is a more extreme measure taken when the borrower believes that the debt was incurred under duress, fraud, or other circumstances that invalidate the debt's legitimacy. Debt repudiation often leads to legal disputes and can damage the borrower's reputation in the financial markets, making it harder for them to access credit in the future. In summary, debt rescheduling involves renegotiating the terms of a debt agreement to make it more manageable for the borrower, while debt repudiation is the outright refusal to acknowledge or repay a debt obligation, often due to a belief that the debt is unjust or illegitimate.

- 4. (a) Discuss different types of Loan commitment and the advantages and disadvantages associated with each. [7]
 - (b) The international Bank, provides following data regarding rate sensitive assets and liabilities of the bank as on 31st Mar 2024. The NIL spread in percentage terms for the bank is 1.5%.

Time of Buckets	Assets	Liability	Gap	Cumulative Gap
1-28 days	800	1000	-200	-200
29 Days to 3 Months	650	550	100	-100
3-6 Months	2700	3150	-450	-550
6-12 Months	450	600	-150	-700
1-3 Years	150	300	-150	-850
3-5 Years	450	200	250	-600
Over 5 Years	1000	200	800	200



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

Non-sensitive	300	500	-200	0
Total	6500	6500	0	0

Based on the above information, calculate the following:

- 1. The likely impact on the NII for the bank, if interest rate falls by 25 bps in the first-time bucket.
- 2. The maximum percentage of non-sensitive assets a bank can have in relation to its total assets, according to the extant RBI guidelines on Asset Liability Management (ALM).
- 3. The total rate sensitive assets for the banks.
- 4. The impact of rising interest rates on the Net Uniform (NU) of a bank, according to interest rate scenarios. [7]

Answer:

(a) A Loan commitment is an agreement by a commercial bank or other financial institution to lend a business or individual a specified sum of money. A loan commitment is useful for consumers looking to buy a home or a business planning to make a major purchase.

Loan commitments can be either secured or unsecured.

Secured Loan Commitment:

A secured commitment is typically based on the borrower's creditworthiness and it has some form of collateral backing it. Two examples of open-end secured loan commitments for consumers are a secured credit card—where money in a bank account serves as collateral—and a home equity line of credit (HELOC)—in which the equity in a home is used as collateral.

Because the credit limit is typically based on the value of the secured asset, the credit limit is often higher for a secured loan commitment than for an unsecured loan commitment. In addition, the loan's interest rate may be lower and the payback time may be longer for a secured loan commitment than for an unsecured one. However, the approval process typically requires more paperwork and takes longer than with an unsecured loan.

Unsecured Loan Commitment:

A loan that doesn't have any collateral backing is primarily based on the borrower's creditworthiness. An unsecured credit card is one very basic example of an unsecured open-end loan commitment. Typically, the higher the borrower's credit score, the higher the credit limit.

However, the interest rate may be higher than on a secured loan commitment because no collateral is backing the debt. Unsecured loans typically have a fixed minimum payment schedule and interest rate. The process for acquiring this type of loan often takes less paperwork and approval time than a secured loan commitment.

Advantages and Disadvantages of Loan Commitments:

Open-end loan commitments are flexible and can be useful for paying unexpected short-term-debt obligations or covering financial emergencies. In addition, HELOCs typically have low-interest rates, which may make their payments more affordable. Secured Credit Cards can help consumers establish or rebuild their credit; paying their bills on time and keeping total credit card debt low will improve their credit scores, and in time they may be eligible for an unsecured credit card. The downside of a secured loan commitment is that borrowers who take out too much money and are unable to repay the



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

loan may have to forfeit their collateral. For example, this could mean losing their home. Unsecured commitments have a higher interest rate, which makes borrowing more expensive.

- (b) (i) ₹200 Crores × 0.25% = 0.50 Crores i.e., gain of 0.5 Crores. When gap is negative bank gains when interest rate goes down.
 - (ii) There is no such ceiling prescription of RBI.
 - (iii) Total Rate Sensitive assets = ₹6,500 Crores ₹300 Crores = ₹6,200 Crores
 - (iv) Rate sensitive ₹6,200 Crores and Liabilities ₹6,000 Crores. Bank is Asset Sensitive. Hence in a rising scenario, the bank gains and in declining scenario, the bank loses.
- 5. (a) Sniper Bank has paid up capital of ₹200 Crores, free reserves of ₹600 Crores, provisions and contingencies reserves ₹400 Crores, Revaluation Reserve of ₹600 Crores, Perpetual non-Cumulative Preference Shares of ₹800 Crores, and Subordinated Debt of ₹600 Crores. The Risk Weighted Assets for Credit and Operational Risk are ₹20,000 Crores and for-Market Risk ₹8,000 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 amount of Fund
 - (iv) The capital adequacy ratio of the bank.
 - (v) The amount of minimum capital to support Credit and Operational Risk
 - (b) Discuss the role of IRDAI in the insurance sector.

[7]

[7]

Answer:

- $\textbf{(a)} \qquad \text{(i)} \qquad \text{Tier-1} = \text{Capital} + \text{Free Reserves} + \text{Perpetual non-Cumulative preference shares}$
 - = ₹200 Crores +₹600 Crores + ₹800 Crores
 - = ₹1,600 Crores.
 - (ii) Tier II = (Provisions and Contingencies Reserves Maximum 1.25% of Risk Weighted Assets)
 - + (Revaluation Reserve at 55% Discount) + (Subordinated Debts)
 - = ₹350 Crores + ₹270 Crores (₹600 Crores × 45%, at 55% discount) + ₹600 Crores
 - = ₹1,220 Crores.
 - (iii) Total Capital Fund = Tier 1 capital + Tier 2 capital
 - = ₹1600 Crores + ₹1220 Crores
 - = ₹2,820 Crores.
 - (iv) ₹2820 Crores / ₹28000 Crores = 10.07%
 - (v) ₹20,000 Crores × 9% = ₹1,800 Crores
- (b) The Insurance Regulatory and Development Authority of India (IRDAI) is an autonomous regulatory body that protects the interests of the policyholder. They oversee the growth of the insurance sector in India, the requirements that different types of insurance policies project, and help maintain a speedy development.

Role of IRDAI in the insurance sector:

• IRDAI issues a certificate of registration to the Life Insurance Company and also renews,



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

modifies, withdraws, suspends and cancels the registration.

- The regulatory body secures policyholder's interests in areas like assigning of policy, nomination by policyholders, insurable interest, settlement of insurance claim, surrender value of the policy, and other terms and conditions applicable to an insurance contract.
- It specifies the requisite qualifications, code of conduct and practical training required for insurance intermediaries and agents.
- IRDAI makes certain that the code of conduct is followed by surveyors and loss assessors.
- The autonomous body promotes efficiency in the conduct of the insurance business.
- It also promotes and regulates professional organisations connected with the insurance and reinsurance business.
- It levies fees and other charges for carrying out the purposes of the IRDAI Act.
- IRDAI carries out functions like inspection, conducting inquiries and investigations, including
 an audit of the insurers, insurance intermediaries and other organisations involved with the
 insurance business.
- The rates, advantages, terms and conditions that may be offered by insurers with respect to general insurance business are also controlled and regulated by the regulatory body.
- It also specifies the form and manner in which books of account should be maintained, and the statement of accounts should be rendered by insurers and insurance intermediaries.
- IRDAI monitors the investment of funds by insurance companies and governs the maintenance
 of the margin of solvency. 236 Risk Management in Banking and Insurance The Institute of
 Cost Accountants of India 237 Introduction to Insurance Business.
- It also judges the disputes between insurers and intermediaries or insurance intermediaries.
- It supervises the functioning of the Tariff Advisory Committee.
- IRDAI specifies the percentage of premium income of the insurer to finance schemes for promoting and regulating professional organisations.
- It specifies the percentage of life insurance and general insurance business to be undertaken by the insurer in the rural or social sector.
- 6. (a) Discuss the need for Bancassurance and explain its benefits for both banks and customers. [7]
 - (b) Explain the role, need and functions of Third Party Administrators in Health Insurance. [7]

Answer:

(a) Bancassurance is a new concept in financial services sector means using the bank's distribution channels to sell insurance products.

Need for Bancassurance: The growth of Bancassurance as a distribution channel can be ascribed to the following:

Conducive environment: Progressive dismantling of laws relating to undertaking of insurance businesses by banks, increasing use of electronic channels and automation, growing needs for private retirement plans to complement public pensions, the concern for providing total financial services to customers, etc. have paved the way for Bancassurance.

Cost effectiveness: Insurers look to Bancassurance as an alternative cost-effective mode of



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

distribution as against the costly agency services. It is estimated that 50% of the insurer's cost structure is directly or indirectly related to distribution.

Fee-based income: A bank expects to increase its fee-based income and overall productivity by leveraging its branch network, brand image and client base by optimally using its assets/infrastructure and by positioning itself as a one-stop-shop with value-added service for its customers, thereby increasing customer loyalty and retention. Bancassurance enables a bank to satisfy the risk protection needs of its clients without assuming underwriting risk.

Fund Management: Life insurance (where premium is about 55% of the insurance premium worldwide) is a savings market. It is one of the methods to increase the deposits of banks. Both life and non-life insurance business provide additional flow of float funds besides fee-based income to banks, through the same channel of distribution and with the same people.

Advantages of Bancassurance:

Advantages to Banks:

- The "Tough" effective and efficient sales and marketing culture will have a favourable impact on the banks marketing function.
- Retention of "existing" and acquisition of "new" customers.
- Certain life insurance products will protect or minimize their risk exposure mortgage or other loans, key man etc.
- Ability to sell bank products to life insurer's clients.

Advantages to Consumers:

- Comprehensive financial advisory services under one roof. i.e., insurance services along with other financial services such as banking, mutual funds, personal loans etc.
- Enhanced convenience on the part of the insured.
- Easy access for claims, as customers visit banks regularly.
- Innovative and better product ranges.
- (b) TPA (Third Party Administrator) is a licensed intermediary between health insurance policyholders and insurance companies. It can be a company, an organisation or an agency with a license from the Insurance Regulatory and Development Authority of India. Insurance companies could outsource claim settlements to TPAs to make the process hassle-free and reduce the overall burden of processing claims.

The need of TPA in Health Insurance are:

- Improved efficiency/quality (delivery of services).
- Enhanced standardisation (procedures and due diligence).
- Increase your understanding of healthcare services.
- Implement new management system.
- Increased availability of health insurance.
- Reduce expenses/costs.
- Create protocols to streamline investigations and eliminate unnecessary delays.

10



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER – 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

• Reduce insurance premiums by paving the way.

TPAs are also provide certain value-added services. The functions of a TPA in health insurance are:

- Processing claims and settlements.
- Approving cashless claims.
- Disbursing claims.
- Providing network facilities.
- Database maintenance.
- Collecting premiums.
- Cashless processing for approved hospitals.
- Enrolment.
- Reimbursing hospitals bills with cash.

Some TPAs provide value-added services such as:

- · Ambulance services.
- 24×7 toll-free helplines.
- Medicine supplies.
- Specialised consultation.
- Health facilities.
- Checking available beds.
- 7. (a) Explain the term Hazard. Distinguish between Moral Hazard and Physical Hazard. [7]
 - (b) Discuss the provisions relating to the Appointment of Actuary in the case of:
 - (i) Life Insurance
 - (ii) General Insurance

[7]

Answer:

(a) Factors, which may influence the outcome, are referred to as hazards. These hazards are not themselves the cause of the loss, but they can increase or decrease the effect should a peril operate. The consideration of hazard is important when an insurance company is deciding whether or not it should insure some risk and what premium to charge. So a hazard is a condition that creates or increases the chance of loss. There are three major types of hazards: Hazard can be physical or moral or Morale.

Physical Hazard: Physical hazard relates to the physical characteristics of the risk, such as the nature of construction of a building, security protection at a shop or factory, or the proximity of houses to a riverbank. Therefore, a physical hazard is a physical condition that increases the chances of loss. Thus, if a person owns an older building with defective wiring, the defective wiring is a physical hazard that increases the chance of a fire. Another example of physical hazard is a slippery road after the rains. If a motorist loses control of his car on a slippery road and collides with another motorist, the slippery road is a physical hazard while collision is the peril, or cause of loss.



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

Morale Hazard: This usually refers to the attitude of the insured person. Morale hazard is defined as carelessness or indifference to a loss because of the existence of insurance. The very presence of insurance causes some insurers to be careless about protecting their property, and the chance of loss is thereby increased. For example, many motorists know their cars are insured and, consequently, they are not too concerned about the possibility of loss through theft. Their lack of concern will often lead them to leave their cars unlocked. The chance of a loss by theft is thereby increased because of the existence of insurance. Morale hazard should not be confused with moral hazard. Morale hazard refers to an Insured who is simply careless about protecting his property because the property is insured against loss. Moral hazard is more serious since it involves unethical or immoral behaviour by insurers who seek their own financial gain at the expense of insurers and other policy owners. Insurers attempt to control both moral and morale hazards by careful underwriting and by various policy provisions, such as compulsory excess, waiting periods, exclusions, and exceptions. When used in conjunction with peril and hazard we find that risk means the likelihood that the hazard will indeed cause the peril to operate and cause the loss. For example, if the hazard is old electrical wiring prone to shorting and causing sparks, and the peril is fire, then the risk, is the likelihood that the wiring will indeed be a cause of fire.

- **(b)** To be appointed as an actuary with any insurance company, an individual has to fulfil the following criteria, as put forth under regulations:
 - ✓ He/she should be a resident of India.
 - ✓ Should be a fellow member as per the Actuaries Act, 2006.
 - ✓ He should not be over the age of 65 years.
 - He should possess a Certificate of Practice from the Institute of Actuaries in India.
 - ✓ He has not committed any professional breach.

(i) In the case of life insurance:

- He/she should have passed a specialisation subject related to life insurance. Currently, specialisation refers to a Specialist Application subject as put forth by the Institute of Actuaries in India.
- A prospective candidate should have at least 3 years of post-fellowship experience pertaining to the annual statutory value of life insurers.
- A minimum of 10 years' experience in the life insurance industry, out of which, at least 5 years should be that of the post-fellowship experience.

(ii) In the case of General Insurance:

- He/she should have passed a specialisation subject related to general insurance. As per the Institute of Actuaries in India, currently, specialisation refers to a Specialist Application subject.
- He/she should have at least 1 year of post-fellowship experience pertaining to the annual statutory value of a general insurer.
- A minimum of 7 years' experience in the general insurance industry, out of which, at least 2 years should be that of the post-fellowship experience.



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER – 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

8. (a) The Management of Bridge Bank is worried about the movement of interest rates across the globe and its impact on the financial health of the industry to which it belongs. In order to know the sensitivity of interest rates and its impact, the Management has approached you with the following details relating to its Balance sheet as March 31, 2024:

Capital ₹4,000 Crores Reserves ₹24,000 Crores **Saving Bank Accounts** ₹12,000 Crores **Term Deposits** ₹1,20,000 Crores **Borrowing from RBI** ₹12,000 Crores **Cash Balances** ₹27,000 Crores **Balances with other Banks** ₹60,000 Crores **Investment in Securities** ₹60,000 Crores Bills Payable **₹8,000** Crores **Cash Credit** ₹80,000 Crores Term Loan ₹80,000 Crores and **Fixed Assets** ₹12,400 Crores Total Assets and Total Liabilities ₹4.00.000 Crores.

The term loans have a fixed rate of interest.

As a Management Accountant, you are tasked with creating a detailed report for management, addressing the following points based on the provided information:

- (i) Determine the value of interest-rate-sensitive assets.
- (ii) Assess the amount of interest rate sensitive liabilities.
- (iii) Identify the magnitude and nature of the gap between rate-sensitive assets and liabilities in this scenario. [7]
- M/s NG Ltd. is engaged in the manufacture and sale of metalized and coated films and papers. **(b)** The company is planning to start a new manufacturing facility for which project planning has already begun. The project team is working day and night to procure land, financial arrangements, procuring orders and procurement of machinery from various places, storing machinery purchased and delivered, etc. The company agreed to purchase one Machinery from M/s GV Limited, England for a total value of £ 5 lakhs. The machinery purchased was to be installed at the company's Plant at Jammu and to ensure, secured and safe delivery, the company took a marine cargo (Specific Voyage Policy) for a total assured sum of ₹500 lakhs against any loss/damage occurring to the machinery during transit from Port to Jammu. The company paid the insurance premium due, to complete the contract. NG Ltd. bought the same policy from another insurer also for the same sum insured and on almost the same terms and conditions. The machinery had arrived at Mumbai Port and was delivered to the petitioner's warehouse at Jammu. However, on opening the packed cases, it transpired that the machinery had got damaged during transit. Both the diffusion pumps of the vacuum metallizer had cracked and the elbow of one of the pumps had bent and was damaged beyond repair.



SET - 2

MODEL ANSWERS

TERM - DECEMBER 2024

PAPER - 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

Consequently, insurers were informed about the damage and also sought for surveying assessment of loss estimated at ₹50 lakhs.

Answer the following questions considering the above:

- 1. Is it possible that NG Ltd. can take multiple marine insurance policies for the same cargo? In insurance terminology, what do we call NG Ltd.?
- 2. Discuss the admissibility of the claim and which insurer will bear the loss?
- 3. Do you think any insurance product covers the project before it starts operations?

 Discuss

 [7]

Answer.

(a) Report on Interest Rate Sensitivity Analysis

Date:

Prepared by: Management Accountant

Executive Summary:

This report provides an analysis of interest rate sensitivity for The Bridge Bank. The assessment includes determining the value of interest rate-sensitive assets, calculating the amount of interest rate-sensitive liabilities, and identifying the gap between these two categories.

(i) Interest Rate-Sensitive Assets:

Assets other than Cash and other assets like Fixed Assets are rate sensitive.

		(₹ Crores)
Total Assets		4,00,000
Less: Cash balance	27,600	
Fixed Assets	12,400	40,000
Net		3,60,000

(ii) Interest Rate-Sensitive Liabilities:

Liabilities other than Capital, Reserves and Current Accounts are rate sensitive.

(₹ Crores)
Total Liabilities 4,00,000
Less: Capital 4,000

Reserves 24,000

Current Accounts 1,20,000

 Current Accounts
 1,20,000
 1,48,000

 Net
 2,52,000

(iii) Magnitude and nature of the gap between rate-sensitive assets and liabilities.

 (₹ Crores)

 Interest Rate-Sensitive Assets
 3,60,000

 Less: Interest Rate-Sensitive Liabilities
 2,52,000

 Net
 1,08,000

Interest-Sensitive Assets are more than Interest-Sensitive Liabilities by ₹1,08,000 Crores.

Hence, there is a positive gap.

In conclusion, this report has provided a comprehensive analysis of the interest rate sensitivity of the Bridge bank, addressing the key points outlined by management.



SET - 2

MODEL ANSWERS

TERM – DECEMBER 2024

PAPER – 20B

SYLLABUS - 2022

RISK MANAGEMENT IN BANKING AND INSURANCE

Overall, this analysis underscores the importance of proactive interest rate risk management to safeguard the financial health and stability of the Bridge bank.

Regards

The Management Accountant

- (b) (i) It is possible that the Policyholder can take multiple marine insurance policies for the same cargo or freight with different insurers. Under such circumstances, where two or more policies are effected by or on behalf of the same assured on the same adventure and interest or any part thereof, and the sums insured exceed the indemnity allowed by Marine Insurance Act, 1963, the assured is said to be over-insured by double insurance. NG Ltd. is called insured as NG Ltd. procures the policy or becomes the beneficiary through the insurance contract.
 - (ii) Claim is admissible and where the assured is over-insured by double insurance:
 - a. the assured unless the policy otherwise provides, may claim payment from the insurers in such order as he may think fit. However, he is not entitled to receive any sum over the indemnity allowed by this Act.
 - b. where the policy under which the assured claims is a valued policy, the assured must give credit as against the valuation, for any sum received by him under any other policy, without regard to the actual value of the subject-matter insured.
 - c. where the policy under which the assured claims is an unvalued policy he must give credit, as against the full insurable value, for any sum received by him under any other policy.
 - d. where the assured receives any sum over the indemnity allowed by Marine Insurance Act, 1963, he is deemed to hold such sum in trust for the insurers, according to their right of contribution among themselves.
 - (iii) Before an industry is set up, it involves project planning, financing, procurement of land, land levelling and earthwork, excavation of land, placing orders and procurement of machinery from various places, storing this machinery and other equipment connected with the project in safe conditions, erecting the equipment's as per a planned schedule and finally testing and commissioning the erected plant and machinery for their rated capacity. So, the project can be insured. The engineering policies, recommended at the project stage can be any one of the following three covers:
 - a) Erection All Risks (also known as Storage Cum Erection Insurance).
 - b) Contractors (Construction) All Risks Insurance.
 - c) Contractor's Plant and Machinery Insurance.