

**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. (a) Choose the correct option from the four alternatives given: [10 × 2 = 20]
- (i) 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
- (ii) YTM Stands for -----.
- (A) Yield To Maturity
(B) Yield To Money
(C) Yield To Market
(D) Yield To Motive
- (iii) Which of the following is key strategy insurers use to manage their own investment-related financial risks?
- (A) Focusing all investments in a single asset class
(B) Diversifying their investment portfolios
(C) Increasing their debt to policyholders
(D) Avoiding investment altogether
- (iv) Reputational Risk in Banking refers to-----.
- (A) Decrease in Profits of a Bank when compared to the Growth Rate of Profits in Banking Sector
(B) Decrease in Deposits Growth of a Bank due to economic slowdown
(C) Both (A) or (B)
(D) The potential for damage to Bank's reputation
- (v) The following is the similarity between insurance and gambling-----.
- (A) Promise to pay on the happening of an event
(B) The amount of loss to be paid is known beforehand
(C) Both the parties win on happening of an event
(D) Both are enforceable at law
- (vi) Non-life insurers must ensure that, they do not insure the Assets, that are-----.
- (A) Bought, Out of Public Money
(B) Bought, Using the Bank Loans
(C) Bought, Out of Illegal Funding



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- (D) Bought, By Mortgaging the Property
- (vii) How is the Claim Calculated, in Case of Fire Insurance?
- (A) Percentage of Loss, caused by Fire
(B) Purchase-Value of the Damages, caused by Fire
(C) Current Value of Assets
(D) Depreciated Value of Assets
- (viii) ----- is a voluntary termination of the contract by the policy holders.
- (A) Report
(B) Surrender
(C) Prospectus
(D) Cover note
- (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) During a sudden financial crisis, a bank needs to sell a large block of government bond holdings to meet an unexpected surge in depositor withdrawals. However, due to widespread panic, the bond market has become chaotic, and the bank can only sell the bonds at a price significantly below their recent market value. This situation is a clear example of:
- (A) Funding Liquidity Risk
(B) Market Liquidity Risk
(C) Operational Risk
(D) Credit Risk

Answer:

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
C	A	B	D	A	C	A	B	D	B

- (b) Based on the following case study, you are required to answer question nos. (xi) to (xv)

[5×2=10]

One Guest Faculty of “Risk Management in Banking and Insurance” subject of ICAI is addressing the participants of Final Year Course on “Derivatives” subject and he highlighted the follows points on the subject.

In banking, a derivative is a financial contract whose value is based on an underlying asset like stocks, bonds, currencies, or market indices, rather than the asset itself. Banks use derivatives to manage risk by hedging against potential price fluctuations or to make profits through speculation on future price movements. Common types include futures, options, swaps, and forwards.

The derivatives are used to hedge the various types of risks. The investors, who are disinclined to take risks, purchase or sell derivatives which may occur due to fluctuations in market price at a future

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date. The speculators who are ready to take the risk go for buying and selling such derivatives with the hope of making more profit from such a deal. In other words, the derivative is used to hedge the risks of investors who are risk-averse to those who are ready to take the risk to earn more profit.

The following derivative products are generally used in Banking Sector:

- a) Currency Futures.
- b) Forward Contracts.
- c) Interest Rate Derivatives.
- d) Swap Contracts.
- e) Option Contracts.

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

(xi) Financial Derivatives include-----.

- (A) Stocks.
- (B) Bonds.
- (C) Futures.
- (D) None of the above.

(xii) By Hedging a Portfolio of Investments, a Bank-----.

- (A) Reduces Interest Rate Risk.
- (B) Increases Reinvestment Risk.
- (C) Increases Exchange Rate Risk.
- (D) Increases the Probability of Gains.

(xiii) _____ is defined as the probability of instantaneous or near-instantaneous loss & can be due to flash crashes, other market crises, malicious activity by selected market participants & other events.

- (A) Market Risk.
- (B) Audit Risk.
- (C) Real-time Risk.
- (D) Economic Risk.

(xiv) An option allowing the Holder to Buy Assets in the Future is a -----.

- (A) Put Option Contract.
- (B) Call Option Contract.
- (C) Swap Contract.
- (D) Forward Contract.

(xv) Futures contracts are available at-----.

- (A) Exchanges.
- (B) Banks.
- (C) NBFCs.
- (D) None of the above.

Answer:

(xi)	(xii)	(xiii)	(xiv)	(xv)
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C	A	C	B	A
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Section – B

Answer *any five* Questions from Question No. 2 to Question No. 8.

Each question carries 14 marks.

[5×14 = 70]

2. (a) Explain why traditional risk-focus practices are considered too narrow for modern financial institutions. Also list and describe four specific high-risk areas and four organizational performance elements that a comprehensive risk assessment should evaluate to provide a complete picture of an institution's health. [7]
- (b) Demonstrate with the example various sources of Interest Rate Risk in Banks. What is the impact of the interest rate risk on financial performance of banks. [7]

Answer:

- (a) Traditional risk-focused practices are considered too narrow because they only analyze financial activities and controls. This approach overlooks the many other non-financial factors that also put a modern, interconnected financial institution at risk.

A comprehensive risk assessment provides a more complete picture by evaluating the following:

Four High-Risk Areas:

- i) **Cyber security:** The risk of financial loss, disruption, or reputational damage from unauthorized access to an institution's information systems.
- ii) **Reliance on third-party service providers:** Risks associated with outsourcing critical functions to external vendors, including operational failures or data breaches originating from the third party.
- iii) **Credit Risk and CECL implementation:** The risk that borrowers will fail to repay their debts, and the specific challenges of implementing the Current Expected Credit Losses accounting standard.
- iv) **Regulatory risk (AML):** The risk of non-compliance with laws and regulations, with a specific mention of the Anti-Money Laundering (AML) law.

Four Organizational Performance Elements:

- i) **Governance and management:** Evaluating the effectiveness of leadership, the quality of their development, and the adequacy of succession planning.
 - ii) **Structure and staffing:** Analyzing staffing levels, employee skills, the availability of training, and issues related to recruiting, retention, and turnover.
 - iii) **Operational efficiency:** Assessing the institution's use of technology, the strength of its internal controls, and the clarity of its policies and procedures.
 - iv) **Processes:** Reviewing the effectiveness of core business processes such as procurement, compliance, financial reporting, and marketing.
- (b) Interest rate risk (IRR) for a financial institution is similar to changing raw material costs for a manufacturing organization. If a financial institution like bank, non-banking finance company (NBFC) or housing finance company (HFC) is not able to manage interest rate risk properly, then it runs the risk of

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running into losses just like any manufacturing organization will do if it does not manage raw material costs properly.

Financial institutions (FIs) represent businesses where they borrow money from one counterparty and lend it to another counterparty. A financial institution may borrow money from depositors (current and savings account or fixed deposits) or investors in commercial papers (CPs) or debentures or corporate bonds etc. Thereafter, the financial institution lends this money to entities like individuals (home loans, consumer loans etc.) or corporates (working capital loans, project loans etc.)

Therefore, a financial institution pays a rate of interest to the depositors and receives a rate of interest from borrowers. If it receives a higher interest rate from its borrowers than what it pays to its depositors, then the financial institution makes a profit. Otherwise, it makes a loss.

If an investor compares it with a manufacturing organization, then the interest paid to the depositors is the cost of goods sold (COGS) or raw material cost for a financial institution. The interest rate received from the borrowers is the sales price of goods. If a manufacturing organization receives a sales price of goods, which is less than the cost of the raw material, then it will make a loss. Similarly, if a financial institution receives a lower interest rate from borrowers than what it has to pay to its depositors, then the financial institution will make a loss.

Many times, financial institutions raise money from depositors/investors for a short duration (a few months like CP or CASA) and then use this money to give long-term loans (many years like home loans). In such cases, the financial institution has to keep renewing its short-term borrowings from depositors/investors so that it can keep its long-term loans intact. This creates a situation of asset liability mismatch (ALM).

ALM is an important risk for any financial institution because the counterparties, which have given it short-term funds, may demand it back whereas the FI would not have money to pay them back because all its money would be stuck in long-term loans given by it.

Apart from the asset liability mismatch, the habit of raising money from short term depositors/investors and lending it for long-term loans raises another risk for financial institutions, which is called interest rate risk (IRR).

Interest rate risk arises when the rate at which the loans are given by the financial institution is fixed whereas the rate at which it has raised money from depositors/investors is variable. If the depositors ask for a higher rate from the financial institution and it is not able to pass on this increased cost of funds to its borrowers, then the financial institution faces the risk of losses. This is called interest rate risk (IRR). Interest rate risk further increases in cases where the loans given by the financial institution with fixed interest rate are long-term loans and the deposits raised at variable interest rate are short-term deposits like commercial papers (CPs).

3. (a) **“For most banks, particularly Indian banks, the single largest source of earnings and perhaps earnings volatility also are on account of Credit Risk”. Assess how the Credit Derivatives are useful to mitigate the Credit Risk in Banks.** [7]
- (b) **“The Global Financial Crisis has brought the relationship between banks and their sovereigns, the sovereign-bank nexus, to the centre stage of the economic policy debate.**

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In several countries, banking crises led to sharp increase in public debt, reflecting direct bailouts and emergency fiscal stimuli. In others, fiscal distress and the associated widening in sovereign spreads hit bank balance sheets, which in turn further complicated the fiscal situation. The euro area sovereign debt crisis has provided several examples of such spirals.

But the relationship between banking systems and their governments is not limited to Currency Unions. It is a prevalent feature of Modern Economies.”

Based on the above information, Analyse the designing mechanisms for dealing with Sovereign Risk Exposures by the Banks. [7]

Answer:

- (a) The traditional means to deal with credit risk include lending policies, credit approval processes, discretionary power structure, collateral and guarantees, concentration limits (with regard to single or group borrowers, industries or geographic regions), documentation, etc.)

Credit Derivatives: A credit derivative is an over-the-counter bilateral contract between two or more counterparties that provide for transfer of risks in a credit asset or credit portfolio without necessarily transferring the underlying asset from the books of the originator.

Generally, credit derivatives transfer risks in a credit asset without transferring the underlying asset themselves from the books of the originator. Hence, they are off-balance sheet financial instruments. All credit assets (loans, bonds, account receivable, financial leases, etc.) are bundles of risk and rewards.

Credit Default Swaps (CDS): A Credit default swap is a transaction in which a credit hedger (PB) pays a periodic Premium to an investor (PS) in return for protection against a credit event experienced on a reference obligation, (i.e., the underlying credit that is being hedged).

Credit events are ISDA defined credit events and include six events, namely- bankruptcy, obligation acceleration, obligation default, failure to pay, repudiation/moratorium and restructuring.

Total Return Swaps (TRS): In a total return swap, the PB swaps with the PS, total actual return (coupon capital appreciation depreciation) on an asset in return for a premium. The premium is arrived at by adding a spread to a alternative reference rate. Thus, in a TRS, the protection seller is able to synthetically create an exposure to the reference asset without actually lending to it.

A total return swap represents an off-balance sheet replication of a financial asset such as a loan or bond Whereas credit default swaps capture only credit risk, total return swaps involved the transfer of the total economic return of the asset (i.e., both credit and market risks).

Credit Linked Notes (CLN): Credit default swaps (CDS) are generally off-balance sheet items and are not funded exposures. Credit linked notes are on-balance sheet equivalents of CDS, which combine credit derivatives with normal bond instruments and thus convert credit derivatives (generally an OTC instrument) into capital market instruments.

Credit Spread Options: Credit Spread options enable credit hedgers to acquire protection from an unfavourable migration or Credit spread risk of an asset, as measured by a widening of its credit spread.

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Credit spread options transfer credit spread risk from the credit spread PB to an investor (PS), in return for an upfront or periodic payment of premium.

- (b) The various mechanisms for dealing with Sovereign Risk Exposures of Banking Sector is as follows:

First, banks and sovereigns are linked by multiple interacting channels:

- The sovereign-exposure channel (banks hold large amount of sovereign debt).
- The safety net channel (banks are protected by government guarantees), and
- The macroeconomic channel (the health of banks and governments affect and is affected by economic activity).

Evidence suggests that all three channels are relevant.

Second, policies aimed at weakening the nexus should be designed from a holistic point of view. Measures targeting one channel may have undesired consequences for others (and thus could be counterproductive). In a related vein because of the systemic nature of banks and sovereigns, the nexus can be weakened but not completely severed. Policies should be designed to acknowledge this constraint.

Third, stronger balance sheets and governance of banks and sovereigns may not sever the nexus, but they will reduce its relevance. Larger fiscal buffers and better management of public debt improve debt sustainability and reduce the risk of sovereign-related bank distress. Larger capital buffers and better prudential frameworks strengthen banks and reduce the risk of ban-induced sovereign distress.

Fourth, policies that discourage banks from holding excessive amounts of sovereign bonds, such a positive risk weights or limits on exposures, can improve financial stability and market efficiency. But they should be designed to minimize their procyclical effects. Further, banks hold some sovereign bonds as natural feature of the financial system, so calibration should consider the benefits and costs of smaller holdings. Additional disclosure of sovereign holdings would strengthen market discipline.

Fifth, limits on public guarantees and private loss-sharing arrangements for bank resolution may reduce excessive risk-taking (ex-ante) and the direct fiscal cost of bank resolution (ex-post). Efforts to “end to0-big-to-fail” go in the right direction. However, simply limiting government backstops and safety nets could worsen an eventual banking crisis and increase its indirect fiscal and economic costs. Reforms of safety net arrangements should start with a sound resolution framework with broad resolution powers and tools, effective cross-border co-operation, and robust early intervention powers.

Sixth, there is an international dimension to the sovereign-bank nexus. In theory, the nexus would be weakened if banks were fully diversified across countries and had access to a supra-national safety net. However, because the latter is missing, cross-border diversification should not lead to complacency as bank exposures (and thus the strength of the nexus) can change quickly during crises. The lack of effective arrangements for cross-border resolution complicates the matter.

4. (a) **“Operational Risk is one area of risk that is faced by all organisations. The more complex an organisation is, the more would be its exposure to operational risk.” Demonstrate the nature, causes and effects of Operational Risk in Banking Sector.** [7]
- (b) **Explain the Concept of “Expected Loss due to Credit Risk” in Banks. Also Calculate the Expected Loss based on the following information:**

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Let us assume that a Bank Lends ₹10,00,000 to M/s Surya Limited. But soon, the Company experiences Operational Difficulties, resulting in a Liquidity Crunch.

Determine the Expected Loss that could be Caused by a Credit Default. The Loss Given Default is 38%, the rest can be recovered from the Sale of Collateral Security (i.e., Buildings offered by the Company). [7]

Answer:

- (a) Operational Risk is one area of risk that is faced by all organisations. The more complex an organisation is, the more would be its exposure to operational risk. Operational risk would arise due to deviations from normal and planned functioning of systems, procedures, technology and human failures of omission and commission.

Operational Risk arises literally from all the activities undertaken and consequently it is present everywhere in an organisation. Impact of various forms of operational risk on the organisation may vary in degree i.e., The nature of operational risk may be listed as:

- Operational risk exists almost everywhere in the organisation.
- Operational risks vary in their components. Some are high occurrence low value risks, while some are low occurrence high value risks.
- Operational risks in the organisation continuously change especially when an organisation is undergoing changes.

The Second Consultative Paper of Basel II suggested classification of operational risks based on the 'Causes' and 'Effects'. That is, classifications based on causes that are responsible for operational risks or classifications based on effects of risks were suggested. Classifications based on 'Causes' and 'Effects' are listed below.

Cause-based:

- People oriented causes - negligence, incompetence, insufficient training, integrity, key man.
- Process oriented (Transaction based) causes - business volume fluctuation, organizational complexity, product complexity, and major changes.
- Process oriented (Operational control based) causes - inadequate segregation of duties, lack of management supervision, inadequate procedures.
- Technology oriented causes - poor technology and telecom, obsolete applications, lack of automation, information system complexity, poor design, development and testing.
- External causes - natural disasters, operational failures of a third party, deteriorated social or political context.

Effect Based:

- Legal liability
- Regulatory, compliance and taxation penalties
- Loss or damage to assets
- Restitution

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- Loss of recourse
- Write-downs

Event Based:

- ≈ Internal Fraud
- ≈ External Fraud
- ≈ Employment practices and workplace safety
- ≈ Clients, products and business practices
- ≈ Damage to physical assets
- ≈ Business disruption and system failures
- ≈ Execution, delivery and process management.

- (b) One of the simplest methods for calculating the expected loss due to credit risk is given below:

$$\text{Expected Loss} = \text{PD} \times \text{EAD} \times \text{LGD}$$

Here, PD refers to ‘The Probability of Default’ And EAD refers to ‘The Exposure at Default’, the amount that the borrower already repays is excluded in EAD. LGD here, refers to loss given default.

If LGD is not given, it is calculated as “1 – Recovery Percentage”

Given,

$$\text{Exposure at Default (EAD)} = ₹10,00,000$$

$$\text{Probability of Default (PD)} = 100\% \text{ (As the Company is Assumed to Default the Full Amount).}$$

$$\text{Loss Given Default (LGD)} = 38\%$$

The Expected Loss be Calculated using the following Formula:

$$\text{Expected Loss} = \text{PD} \times \text{EAD} \times \text{LGD}$$

$$\text{Expected Loss} = 100\% \times 10,00,000 \times 38\%$$

$$\text{Expected Loss} = ₹3,80,000$$

Thus, the Bank Expects a Loss of ₹3,80,000.

5. (a) “There is no formula to calculate Sovereign Risk. Instead, it is measured by Sovereign Risk Rating, which measures the Default risk and is usually assigned by Global rating agencies such as Moody’s, Standard and Poor (S&P), Fitch, etc. Such Sovereign ratings assess the risk by analysing the ability and willingness of a country to service its debt, which includes evaluation of relevant solvency and liquidity factors of the country, the political stability of the country in question as well as any limiting factors such as Financial Network and Social unrest in the country.”

Based on the above information, Demonstrate the Types and Factors contributing to Sovereign Risk.

[7]

- (b) Life insurance business is a long-term business and to ensure that resources are available to an insurer for meeting the claims, there must be an efficient system of investment of the funds. Explain how the IRDAI has ensured that this happens in the Indian market. [7]

Answer:

- (a) **Types:** Types of Sovereign Risk can take different forms as enumerated below:

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- ✓ When a government has bonds that are due to mature, and they don't have sufficient receipts to repay the maturing debts and need to re-enter the market to raise additional money via Bond Issuance in such cases, Sovereign Risk takes the form of Refinancing Risk
- ✓ It also takes the form of a country imposing regulations, restricting the ability of debt issuers in that country to meet their obligations.

Factors: There are various factors that contribute to the risk, as given below:

Legal framework: If the legal framework of the country is weak leading to problems like inadequate property protection right, corruption or inconsistent rules, this will mean that the foreign investors are at a risk and may feel threatened.

Economic factors: High inflation, heavy debt, a volatile currency, etc., contribute to default risk. As a result, the country will be in an ongoing crisis, resulting in investor losses.

Exchange rate fluctuation: This is a very important factor leading to risk on investment. It impacts the investment value which is denominated in that currency and erodes the return of investors.

Political problems: Frequent changes in the ruling government, civil unrest, political conflicts can result in an unstable environment that affects the investments made by foreign investors and ultimately discourage them.

- (b) Life Insurance is a long-term contract and hence it is essential that the Life insurance Company should be able to meet its future obligations and commitments in the form of claims that may arise. In other words, it means that the company should have resources available anytime and hence must have a strong Investment policy so that all the premiums received are amicably invested in safe investments so that the company remains solvent and sustainable at the same time. Therefore, in a bid to direct long term savings, the amended investment regulations of the Insurance Regulatory Development Authority (IRDA) provide the IRDA (Investment) Regulations, 2000 as amended from time to time for Insurance companies with regards to the investments. As per Regulation 3, a life insurer, for the purposes of these regulations, shall invest and at all times keep invested, the Investment Assets forming part of the Controlled Fund as defined in Section 27 of the Act as under:

- (i) All funds of Life Insurance business and One Year Renewal Pure Group Term Assurance Business (OYRGTA), and Non-unit reserves of all categories of Unit linked life insurance business, as per regulation 4;
- (ii) All funds of Pension, Annuity and Group Business [as defined under Regulation 2(d) of [IRDA (Actuarial Report and Abstract) Regulations, 2000] as per Regulation 5;
- (iii) The unit reserves portion of all categories of Unit linked funds, as per Regulation 6.

6. (a) State the exclusions as regards a fire insurance policy. [7]

- (b) Mr. Ramprasad, an individual has a health insurance policy with M/s X Health Insurance Company Limited. The sum insured is ₹15 lakh and the policy has a floater option of ₹ 5 lakh. The policy was first taken in 2021 and has been live from then with Mr. Ramprasad paying the renewal premium by due dates. During the tenure of the policy with M/s X Health Insurance Company Limited, Mr. Ramprasad has made some claims, small and big but all these have been rejected by the insurer. The policy is due for renewal on 15th July, 2026. Mr. Ramprasad has been approached by Mr. Gopal, an

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agent of a different company, M/s Y Health Insurance Company Ltd. with a proposal that sounds attractive to Mr. Ramprasad. He wants to change over to M/s Y Health Insurance Company Limited from M/s X Health Insurance Company Limited.

Indicate the option to Mr. Ramprasad and the process involved. Does M/s X Health Insurance Company Ltd. have any role to play in this move? Discuss with reasons. [7]

Answer:

- (a) A Fire Insurance Policy usually does not cover a certain amount known as “Excess” under the policy. The policy also excludes damage caused by war and war like operations, nuclear perils, pollution or contamination, electrical/mechanical breakdown, burglary and house breaking.

Certain perils like earthquake and spontaneous combustion can be covered on payment of additional premium. Fire Insurance policies are issued for one year except for dwellings, where a policy may be issued for long term (with minimum period of three years), and the premium for the entire duration should be paid in advance subject to the discounts available as per the policy provisions.

- (b) One of the facilities offered to a policy holder under the health insurance policies is the right accorded to a policy holder to transfer the credit gained for pre-existing conditions and time bound exclusions from one insurer to another insurer or from one plan to another plan of the same issuer. It is called portability of an insurance policy.

It is the right conferred on a Policyholder who decides to move from one General or Health insurer to another or to another plan of the same General or Health insurer. Such portability is not applicable to fixed benefits payable under health policies issued by a life insurer. The advantage of portability is the carry forward of the credit accrued on account of having a policy with the previous insurer. Long term benefits gained under the terms of a policy will not be denied by a switch over to another insurer by the policy holder.

The application for portability will have to be given to the existing insurer who will send it through a portal to the new Insurer who may request for the claim’s history and other details from the old insurer who shall give them to the new insurer within a period of 7 days from the date of receipt of request. An insurer may reject the request for portability if the policy holder approaches 60 days before or within 45 days of the date of expiry of the insurance policy. However, an insurer may at their option consider the request for renewal even outside the stated period. The new insurer is under obligation to accept or reject within a period of 15 days from the date of receipt of the Portability form.

If the new insurer does not convey any decision with the aforesaid 15 days, the new insurer is deemed to have accepted the request for portability. No charges for portability can be levied either by the previous insurer or the new insurer. No commission shall be paid to any Agent or Intermediary for the policy which is ported from one insurer to another insurer.

In the present case, Mr. Ramprasad obviously is a long-standing customer of M/s X Health Insurance Company Ltd. He apparently has accumulated some credits because of the longevity of the policy and his claims profile. Obviously, he is not happy with M/s X Health Insurance Company Ltd and wants to move

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to M/s Y Health Insurance Company Ltd. Mr. Ramprasad possibly feels that his needs may be taken better care by the Agent of M/s Y Health Insurance Company Ltd.

In the circumstance, Mr. Ramprasad has the freedom to ask M/s X Health Insurance Company Ltd. to port his policy to M/s Y Health Insurance Company Ltd. under an agreement within the time schedule as prescribed, it can be done whereby all the accumulated credits and benefits under the policy with M/s X Health Insurance Company Ltd. will continue to be enjoyed from M/s Y Health Insurance Company Ltd. under the scheme. Neither M/s X Health Insurance Company Ltd. nor M/s Y Health Insurance Company Ltd. or the agent will be entitled to any fees or charges for the portability.

Mr. Ramprasad can be advised to follow the prescribed procedure and seek portability of his health cover from M/s X Health Insurance Company Ltd. to M/s Y Health Insurance Company Ltd.

7. (a) **Demonstrate in detail the concepts of “Risk Review and Monitoring” Systems in Managing Risks in Insurance Business.** [7]
- (b) **“Risk Management provides a clear and structured approach to Identifying Risks”. Demonstrate in detail the benefits and strategies in Risk Management Process of Insurance Business.** [7]

Answer:

- (a) There should be an effective monitoring system to track whether any risk indicators have been triggered, and to ensure that risk standards and limits are complied with as intended and any deviation is duly approved and documented. The insurer should also establish clear procedures to investigate non-compliances with the intent of preventing such incidents from recurring. The consequences for non-compliance with established limits should be clear and pre-determined.

The insurer should regularly review whether it has correctly assessed the impact and probability of material risks and effectively treated or mitigated the risks, including identification of lessons that could be learned for future assessment and management of risks.

For example, the insurer should put in place an effective system to gather underwriting and claims information to identify any emerging trend and provide feedback to the relevant business units so that these can be taken into account in any subsequent marketing, product development, pricing, underwriting, reserving and reinsurance management decisions.

An insurer should put in place a structure setting out the reporting lines and roles of business units and personnel involved, and procedures and risk indicators to monitor the product implementation and performance after its launch. These may include:

- ✓ Comparing between key performance indicators and business plan, and actual versus expected results.
- ✓ Monitoring adherence to the insurer’s policies and procedures as well as regulatory requirements.
- ✓ Monitoring changes in risk profiles and analysing loss experience (particularly large and catastrophic losses).
- ✓ Monitoring changes in policyholder’s behaviour leading to higher lapse rates or deteriorating claims experience; for example, prolonged economic recession causing more policyholders to lapse surrender their life insurance policies or to submit fraudulent property related claims.

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- ✓ Monitoring the number and nature of complaints.
- ✓ Monitoring changes in tax, regulatory reserving and capital requirements; and
- ✓ Conducting internal audit reviews and actuarial reviews.

(b) Benefits to Managing Risks:

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.

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 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.

Risk Management Strategy:

- People are now more likely to sue. Taking steps to reduce injuries could help in defending against a claim.
- Courts are often sympathetic to injured claimants and give them the benefit of the doubt.
- Organization and individuals are held to very high standards of care.
- People are more aware of the level of service to expect, and the recourse they can take if they have been wronged.
- Organizations are being held liable for the actions of their employees/volunteers.
- Organizations are perceived as having a lot of assets and/or high insurance policy limits.

Risk Management is a major area of concern for an insurer Risk Management is a major area of concern for an insurer. The insurer who manages the risk adequately and prudently, always enjoys risk free functioning, which go a long way in building the inner core strength of its future functioning in the industry. The US debt management has taught a lesson to the global risk managers, that how important it is to anticipate risk well in advance, otherwise it will spell doom for that company or an economy.

A General Insurance Company is exposed to various types of risk including:

- ✓ Underwriting.
- ✓ Reinsurance.

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- ✓ Operational.
- ✓ Market and
- ✓ Liquidity Risks amongst others.

The objective of a risk management framework is to ensure that various risks are identified, measured and mitigated; and policies, procedures and standards are established so as to adequately address these risks through systemic response and strict adherence. The Insurance Regulatory and Development Authority (IRDA) in August 2009 issued guidelines on Corporate Governance for insurance sector. Apart from laying emphasis on the importance of governance in the insurance sector, the circular laid out the importance of risk management and the need for control functions.

Accordingly, every company was mandated form a risk committee as well as appointing a Chief Risk Officer. The guidelines stated that sound management of an insurer is dependent on how well risks are managed; and emphasized the need to lay down the risk management strategy and monitor all risks across various lines of business.

8. (a) (i) **A Corporate Client has requested the Bank to sanction of a Term Loan of ₹ 200 Crores for setting up a project. The loan will be repaid within 5 years. Due to the industry exposure ceiling, the bank is unable to undertake the exposure. Given the long-standing relationship with the customer, the bank wants to accommodate the customer. If this loan is sanctioned, to hedge the loan concentration, the bank will use “Total Return Swap”. Discuss with examples what is meant by “Total Return Swap”. How it is useful to the Bank to mitigate the Credit Risk.**
- (ii) **A Company needs a Corporate Loan of ₹ 1,000 Crores to be withdrawn immediately and availed for one year. Among other banks, Universal Bank is also approached for this. The Bank is ready to sanction a loan up to ₹ 250 Crores (Due to Exposure Ceiling), while the Company requested a loan of ₹ 500 Crores, as the balance part has been managed by the Company, from other Banks. To retain the customer, for accommodating the party to the extent of ₹ 500 Crores, the bank is using “Credit Default Swap”. Discuss with examples what is meant by “Credit Default Swap”. How it is useful to the Bank to mitigate the Credit Risk.** [3+4=7]
- (b) **Mr. K purchased an automobile service station from Mr. V. The purchase price included the costs of building, equipment and other assets. The business was financed by a loan taken by Mr. K from a scheduled bank, which also held a mortgage of the building. Mr. K, after purchase, converted one of the car-repair bays into a quick-service restaurant. Mr. K had secured an insurance cover on the property but did not disclose to the insurer about the conversion. Six months after the commencement of the business, a car undergoing servicing at the station caught fire and damaged the roof over a bay in the service station area.**
- From the above information, answer the following questions with reasons in brief:**
- (i) **Who had insurable interest in the property at the time of fire?**
- (ii) **Mr. V told Mr. K that in order to save money, Mr. K could takeover Mr. V's insurance cover instead of buying a new policy. Would it have been appropriate to do this, without Mr. V's insurer being informed?**

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- (iii) Investigation into the fire accident revealed that the car owner knew that the vehicle's gas tank had a leak but this was not disclosed to Mr. K when the car was left for service. Will the principle of subrogation apply in this case?
- (iv) Did Mr. K show utmost good faith when he applied for property insurance? [1+2+2+2=7]

Answer:

- (a) (i) **Total Return Swap:** A Total Return Swap is a contract between two parties who exchange the return from a financial asset between them. In this agreement, one party makes payments based on a set rate while the other party makes payments based on the total return of an underlying asset.
- The underlying asset may be a bond, equity interest, or loan. Banks and other financial institutions use TRS agreements to manage risk exposure with minimal cash outlay. However, in recent years, total return swaps have become more popular as a tool for regulatory capital relief and leverage. Banks used them to move risk exposures synthetically off-balance sheets, while hedge funds used them to take large positions without the funding costs of outright purchases.
- The TRS payer (asset owner) transfers the market risk and income of the asset to the receiver but still retains the asset on its balance sheet. This means the payer remains exposed to counterparty credit risk (the risk that the receiver fails to make its floating payments or cover losses if the asset declines). For example, if the asset price falls during the lifetime of the TRS, the receiver will pay the asset owner a sum equal to the amount of the asset price decline.
- One of the benefits of total return swaps is their operational efficiency. In a TRS agreement, the total return receiver does not have to deal with interest collection, settlements, payment calculations, and reports that are required in a transfer of ownership transaction.
- The other major benefit of a total return swap is that it enables the TRS receiver to make a leveraged investment, thus making maximum use of its investment capital. Unlike in a repurchase agreement where there is a transfer of asset ownership, there is no ownership transfer in a TRS contract.
- (ii) **Credit Default Swap (CDS):** The primary purpose of a Credit Default Swap (CDS) is to transfer credit risk from one party to another. Essentially, it functions as a form of insurance against the risk of default on loans or bonds in an investor's portfolio. By entering into a CDS agreement, investors can protect themselves from potential losses arising from credit events that may impact the value of their investments.
- Credit Default Swaps have a significant impact on the financial markets in several ways. Firstly, they provide investors with a mechanism to hedge against credit risk, allowing them to manage and mitigate potential losses associated with default events. This risk management tool enhances market efficiency by enabling investors to take on credit exposure while safeguarding against adverse outcomes.
- Moreover, Credit Default Swaps contribute to market liquidity by facilitating the trading of credit risk. They allow investors to buy or sell protection on credit instruments, thereby increasing the overall liquidity of the market and improving price discovery for credit securities. This liquidity enhancement fosters a more robust and dynamic financial marketplace.

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Additionally, the pricing of credit instruments is influenced by the trading activity in Credit Default Swaps. Market participants use CDS prices as a benchmark to assess the creditworthiness of entities and determine the pricing of related securities. Changes in CDS spreads can signal shifts in market sentiment and provide insights into the perceived credit risk of different issuers.

- (b) (i) Mr. K has insurable interest in the property. Mr. V after sale of the business, does not have an insurable interest. The bank as a mortgagee too, has limited insurable interest on the property.
- (ii) No, Mr. V cannot pass on the rights under the old insurance contract to Mr. K without consulting that insurer and obtaining its consents. Insurance policy is a personal contract by nature, hence is non-transferrable. Mr. K should apply for a policy and only then can benefit from it, after issuance of the same.
- (iii) Yes, the principle of subrogation is applied. According to this principle, when the insured is compensated for the losses due to damage to his insured property, then the recovery rights of such payments, shifts to the insurer. In this case, because the car owner acted with gross negligence by intentionally concealing a known gas tank leak, Mr. K's property insurance company—after compensating Mr. K for the fire damage to his building's roof—will use subrogation to sue and recover the payout amount directly from the negligent car owner (or the car owner's motor liability policy).
- (iv) Mr. K has breached the principle of utmost good faith, by not revealing material fact of converting part of the car bay into a restaurant. In this situation, Mr. K is bound to intimate any alteration to the property to the insurer, if he intends to extend the coverage of the same, which can be done through an endorsement. In the present case, Mr. K has not informed the company about the conversion, which is a material fact, as it increases the degree of risk of the insured property.