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
- (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

(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 ICMAI 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 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.

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]

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.

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]

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:

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]

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]

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 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]

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]

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?

(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]