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) An Indian investor's holding in a foreign company becomes worthless after the host government nationalizes the industry without adequate compensation. The investor is primarily exposed to
- (A) Liquidity risk
- (B) Sovereign risk
- (C) Interest-rate risk
- (D) Reinvestment risk

(ii) YTM Stands for ----------.
- (A) Yield To Maturity
- (B) Yield To Money
- (C) Yield To Market
- (D) Yield To Motive

(iii) The risk that arises due to worsening of credit quality is
- (A) Intrinsic risk
- (B) Credit spread risk.
- (C) Portfolio risk.
- (D) Counterparty risk.

(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) Under Section 4 of IRDAI Act, 1999, which of the following correctly states the composition of the Authority?
- (A) A Chairperson, five part-time members and four whole-time members
- (B) A Chairperson, five whole-time members and four part-time members
- (C) A Chairperson and ten whole-time members only
- (D) A Chairperson, four whole-time members and not more than five part-time members

(vii) A fire-insured warehouse suffers damage due to a chain of events involving both insured and uninsured causes. While deciding the claim, which cause should be examined?

(A) The earliest cause
(B) The most remote cause
(C) The proximate cause
(D) Every cause independently

(viii) How does the entry age of the Life Assured primarily influence the premium under a Term Insurance product?

(A) Younger applicants pay higher premiums due to the longer duration of the risk pool
(B) Higher entry age attracts a higher premium because the insurer's mortality risk increases with age
(C) Premium rates remain constant irrespective of entry age as term plans carry no investment risk
(D) Premium rates decrease with age as the term remaining till average life expectancy shortens

(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) Subrogation means _____

(A) something of monetary value
(B) to make good loss
(C) payment of premium
(D) transfer of rights of an insured to another person

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

Mr. Kapoor, 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 various ways in which an effective risk management creates value. [7]

(b) Demonstrate the supervisory principles for managing Interest Rate Risk in the Banking Book. [7]

3. (a) Examine the ideal organizational set up for liquidity risk management in a banking institution. [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) Demonstrate the major types of Off-Balance Sheet Risk Exposure in banks. Also discuss the risks associated with such transactions. [7]

(b) International Bank has provided the following information relating to its advance portfolio as of Mar 31, 2026: Total advances of ₹40,000 Crores. Gross NPA 9% and Net NPA 2%. Based on this information. You are required to Calculate:

(i) Considering that all the standard loan accounts represent general advances, what is the amount of provision for standard loan accounts?
(ii) What is the provision on NPA accounts?
(iii) What is the total amount of provisions on total advances, including the standard accounts?
(iv) What is the amount of gross NPA and net NPA?
(v) What is the provision coverage ratio for NPA
(vi) What is the minimum amount of provisions to be maintained by the bank to meet the provisioning coverage ratio of 70%? [7]

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. [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) Examine the Duties and Responsibilities of a Surveyor and Loss Assessor. [7]

(b) Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PM-JAY) is a game changer in Health Insurance Sector." Discuss the major features and recent developments of this scheme. [7]

7. (a) Demonstrate the concepts of "Risk Review and Monitoring" Systems in Managing Risks in Insurance Business. [7]

(b) Demonstrate the benefits to managing risks and examine the risk management strategy. [7]

8. (a) Apex Capital Bank holds a portfolio of corporate loans and bonds on its books. To optimize its regulatory capital and manage asset-liability risks without an outright sale of the underlying assets, the bank explores synthetic risk transfer mechanisms. Simultaneously, an institutional fund seeks leveraged credit exposure without incurring the funding costs of purchasing physical debt instruments. The bank's risk management committee is evaluating Total Return Swaps (TRS) and Credit Default Swaps (CDS) to achieve these objectives.

(i) Explain the structure and cash-flow mechanics of a Total Return Swap (TRS). Analyze, how it allows the bank to transfer market risk and gain capital relief without transferring asset ownership.

(ii) Summarize the Credit Default Swap (CDS). Critically assess, how it functions as credit default insurance, and in what ways does it support debt market liquidity and credit spread price discovery. [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.

Critically assess the situation above, 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. Identify, 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]