

Test Series: May 2020

**MOCK TEST PAPER 1**  
**FINAL (NEW) COURSE: GROUP – II**  
**PAPER – 6A: RISK MANAGEMENT**

**Solutions**

**Note: Please note these solutions are for guidance purpose only.**

**ANSWERS TO CASE STUDY: 1**

1.1 Point-wise inputs on the issues raised are as follows:

(i) It might be possible that purchase manger may authorise the order for a wrong script, instead of the intended one by the manager or intentionally there may be under issue comparing with authorised script. Further, since all related works are also under of the Manager he might influence other employees and commits fraud. In such case proper Internal Control System need to be placed and other related employees should not be under his control.

(ii) The risk manager tries to explore the possibility of employing new software towards the same. If possible he should employ Artificial Intelligence and Machine Learning Language dynamically responds to change in data / situation.

(iii) The Risk Manager should use Risk Models such as Value at Risk (VaR), Stress Testing etc. to measure the possible loss during the period of time.

(iv) The Risk Manager should monitor the risk of Anti-Money Laundering (AML).

(v) The rules and regulations existing in a foreign country and also the risk factors involved with reference to the investment climate of that country that are to be considered before buying shares of a foreign company.

(vi) While applying for a bank loan for the expansion of the portfolio, the parameters of credit risk that the bank might consider and also the credit scoring model that might be applied by the bank, while approving such loan to the company. The Company would be offering some of its immovable properties as collateral to the proposed loan with the bank. Especially the value of collateral is an important consideration as the value of Fixed Assets such as houses etc. may be high during buoyant market not otherwise.

(vii) The risk manager should explore the possibility of "certainty equivalent" technique.

(viii) Effectively employing big data analytics in analysis of various transactions to study the patterns of investments and also the possibility of using block-chain technology in ensuring the veracity of the transactions.

(ix) Understand and reduce the exposures in financial risks by using strategies such as hedging, credit default swap, insurance etc.

(x) Gathering various information relating to the operations of NBFC in India including credit risk management and the underlying guidelines of RBI with respect to capital adequacy norms, provisioning etc.

**(½ Marks for each correct point = Max. 15 Marks)**

1.2 (C)

1.3 (C)

1.4 (B)

1.5 (B)

1.6 (C)

**ANSWERS TO CASE STUDY: 2**

2.1 (i) The main risk that will be faced by the Bank is Credit Risk and various components of this risk are as follows:

(1) Default Risk – This risk means the missing a payment obligation (of principal or interest or both). Default Risk can be measured by probability of default. It depends on credit worthiness of a borrower which in turn depends upon various factors such as management of organization, size of business, strength and reputation of promoters etc.

**(1 Mark)**

(2) Exposure Risk – This implies the uncertainty associated with future level or amount of risk. In other words, this risk is mainly associated with unexpected action of other party say prepayment of loan before due date or request for refund of deposit before due date.

In some cases, say for amortized credit such risks does not exists as period of receipt is known with greater certainty. Due to uncertainty generally off balance sheet items create such risks. However, in such cases, the exposure is not associated with client's behavior rather behaviors of market which keeps on changing constantly. In case value of derivative position turns out to be positive there is credit risk as it will lose money, if other party defaults. To overcome such risk normally derivative instrument are used.

**(1 Mark)**

(3) Recovery Risk – This risk is related to recoveries in the event of default, which in turn depends upon various factors such as quality of guarantee provided by borrower, and other surrounding circumstances. This risk can be minimized through Collateral and Third Party Guarantee. However, existence of these two risk management tool also carries risk.

(a) Collateral Risk: Although collateral reduces the credit risk but it happens only if collateral can be sold at a significant value. The quickness in realization of collateral depends upon its nature and prevailing market conditions. In normal course, fixed asset collateral normally carries low realizable value than cash collateral. However, if in buoyant market say in case of a property even a fixed asset in the form of a house property carries a higher value. With the use of collateral, the credit risk becomes twofold:

- Uncertainty related to access it and disposing encumbrances which may be legal in some cases.
- Uncertainty related to the value realizable from the collateral which may be subject to various factors. To some extent the 2008 crisis was due to overvaluation of collateral against which borrowers were granted hefty loan and at the time of realisation the collateral value was very less.

(b) Third Party Guarantee Risk: This collateral is a kind of simple transfer of risk on Guarantor and in case guarantor defaults then risk again comes back to lender.

**(4 Marks)**

(ii) In my opinion the Term Loan upto maximum Rs. 6 crore can be extended to bank as mentioned above the value of collateral itself depends on many factors hence the loan of same amount of will be quite risky.

**(2 Marks)**

(iii) To measure random loss, following formula can be used:

$$D \times A \times LGD$$

D = Default %

A = Amount of Exposure

LGD = Loss Given Default

Accordingly, the expected loss on the term loan of Rs. 6 Crore shall be:

$$4\% \times \text{Rs. 6 Crore} \times 80\% = \text{Rs. 19,20,000}$$

**(3 Marks)**

(iv) Calculation of Maximum Permissible Bank Finance (MPBF) as per 2nd Method of Lending (Tandon Committee Recommendations) is as under:

Particulars	Amount (Rs. in Crore)
1. Total Current Assets (TCA)	8.00
2.. Less : Current Liabilities other than banking borrowing	3.00
3. Working Capital Gap (WCG) (1-2)	5.00
4. Less : 25% of Total Current Assets (25% of 1)	2.00
5. Maximum Permissible Bank Finance (MPBF) (3-4)	3.00

With this additional borrowing the Current Liabilities shall become Rs. 6 Crore (3 + 3) and the new Current Ratio shall become 1.33 (Rs. 8 Crore/Rs. 6 Crore).

**(4 Marks)**

2.2 (A)

2.3 (B)

2.4 (B)

2.5 (B)

2.6 (C)

### **ANSWERS TO CASE STUDY: 3**

#### **Multiple Choice Questions**

3.1 (D)

3.2 (A)

3.3 (B)

3.4 (D)

3.5 (A)

3.6 The types of risk can be faced by the firm are as follows:

(i) Market Risk: The firm is facing Market Risk due to adverse change in raw material cost and scarcity of water. There is lull in the demand for big housing projects as most of the middle-class households are moving towards low cost housing. Hence the firm could not sell/ book the two apartments.

(ii) Operational Risk: Risk of loss resulting from failure of people employed in the organization as workers are not adequately trained and accidents are occurring at the site. In addition to this workers and supervisors are not following safety instructions. The inefficiency of the workers resulted in wastage of material and caused delay. The substitute for natural sand might result in poor finishing and less mortar bonding. Water scarcity forced the firm to pay extra money for the construction.

(iii) Compliance Risk: As payment of Income Tax not made out on time. Hence it might face action from the Income Tax Department.

(iv) Strategic Risk: Since the current and prospective impact on earning is adverse.

(v) Financial Risk: The risks in connection with the cash flows and the pressure given by the bank in its notice for the repayment of the loan.

- (vi) Credit Risk: The inability of the firm to repay the outstanding dues to the bank.
- (vii) Liquidity Risk: The act of paying for the purchase of bricks and cement from out of the funds earmarked for the payment of Income Tax shows the firm is facing the same.
- (viii) Reputation Risk: As the project is getting delayed, the firm is subject to reputation risk.
- (ix) Legal Risk: The persons who have booked the apartments may sue the firm or ask for compensation for the delay in completion.
- (x) Safety Risk: The workers are not following the safety standards.
- (xi) Environment Risk: The increased dust and pollution cause environmental risks

**(1 Mark for each correct point = Max. 6 Marks)**

### 3.7 Sample Risk Register on dust and pollution risk faced by the firm

Risk	Dust and Pollution Risk.
Causes	Usage of electric drills, hammers, cement & sand mixing etc.,
Consequences	Workers health affected, complaints from neighbours, regulatory authorities imposing fines etc.
Ownership	Owned by the site supervisors.
Inherent risk score	Seven out ten. This is calculated before implementing controls towards containing the dust and pollution
Controls	Provide safety masks, helmets, boots, hand gloves to workers. Sprinkle water periodically so that the minute waste does not fly.
Residual risk score	Four out of ten. After implementing the controls, residual risk stands at this level.
Process	Processes to control the dust are implemented
Action for further mitigation	To explore and study measures adopted by the other industry players. To educate and train the workers.
Action owner	Site Manager.
Due Date	Within three months.

**(½ Marks for each correct point = Max. 5 Marks)**

**3.8** The Risk Management Payoff Model of Epstein and Rejc, 2005, demonstrates how improved risk measurement and management provides benefits throughout the organization. Benefits extend to:

1. Enhanced working environment

Safety measures are to be addressed by giving training which in turn would increase the performance of the workers.

2. Improved allocation of resources to the risks that really matter

Key risk areas identified and resources are allocated.

3. Sustained or improved corporate reputation

By completing the project on time would increase the credibility of the firm.

4. Other gains, all of which lead to prevention of loss, better performance and profitability, and increased shareholder value.

By following better project management, the firm can reduce the wasteful expenditure and thereby achieving improved profitability.

**(1 Mark for each correct point = Max. 4 Marks)**

#### **ANSWERS TO CASE STUDY: 4**

##### **Multiple Choice Questions**

4.1 (C)

4.2 (D)

4.3 (B)

4.4 (D)

4.5 (A)

**4.6** There are many areas of risk that a company may face relating to governance risks. The absence of an effective corporate governance framework and properly documented governance policies can create serious risks. There has to be equitable treatment of shareholders, and the role of stakeholders have to be defined, communicated and monitored, to prevent risks in these areas.

There are disclosure and transparency norms and if they are not articulated, considerable risks arise. The various responsibilities of the Board cannot be left undefined, nor undocumented or not reviewed. If the Board has not defined risk capacity, appetite and risk response strategies, and initiated a proper enterprise risk management policy and approach to risks, there can arise risks for governance.

The Board cannot be ignorant of the risks facing the company. Risk managers should be independent and be not implementing strategy. The Risk management function and the CRO should report directly to the Board. Board should ensure that risk management and oversight practices should not face challenges and all stakeholder concerns should be met. Boards need to look at the long term; many risks will arise if the focus is on the short term. They need to disclose the process of risk management and the results of risk assessments. They should ensure that whistle-blower matters are attended, and shield the company against negative media reports, shareholder activism, unauthorised related party transactions, disputes among promoter/owners and other shareholders.

An independent assessment of risk governance framework has to be initiated so that there is an improving risk management capability for the company. The risk management framework (RMF) should define a policy statement on matters such as determining when to review the RMF and the frequency for undertaking the review, and deciding who is responsible for the review. This may be done by the Audit Committee or a team of Directors or with external facilitation and selecting the scope and review. The results have to be sent to the various layers of the company and risk management tightened and enhanced.

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**(4 Marks)**

**4.7** Fraud risk is an inherent risk which arises from the opportunities to make an unlawful gain by an internal employee or an external person or entity by exploiting the gaps in the processes of the organisation. Fraud risk in financial reporting also has assumed importance. The COSO framework has been enhanced to ensure highest degree of accuracy and completeness in financial statements. Operational control failures such as those that allow an employee to deliberately tamper with the data can lead to fraud risk owing to poorly designed reporting of data.

Fraud risk can be reduced by ensuring that there are controls in place, such as proper verification by the same or another person. There has to be reconciliation of facts and figures. Equally important is the segregation of duties which will not allow a person of one department to carry out the entire transaction on his own. There is also the need for physical controls such as safekeeping of money, documents, legal agreements in safe vaults etc. Use of two keys may be required when dealing with high amounts of cash or high value documents. There has to be supervisory controls, exception triggers and proper authorisation and approval. There has to be proper preventive controls, detective controls, manual controls and automated controls.

The Board has to see that the Internal Audit Function has carried out their management function in ensuring that internal controls and other defences are in place so that the chances of fraud and financial crimes are minimised and there is a tightening based on reviews.

**(3 Marks)**

**4.8** The first step is to identify credit risks and hence there is need to study borrower's profile to understand the borrower's financial stability, regularity in payments, possibility of default risk, the source of income etc.

Credit risk has to be migrated through means such as funded and non-funded risk mitigation. Funded credit is when the bank has recourse to cash or assets of the buyers. Funded credit mitigation methods include On Balance Sheet Netting of mutual claims/reciprocal cash balances between the bank and counterparty. Another method is collateral method whereby assets or security is retained or deposited with the bank against grant of any loan advances, debit or credit lines. These can be in the form of cash, gold, Corporate Debt Securities etc.

Unfunded credit risk mitigation process involves an unsecured obligation of third party, where this entity is more credit worthy than the primary borrower.

**(1 Mark)**

BASEL II has provided updated norms for the financial market, which has three main pillars. The first is more focussed on credit risk. It provides three different ways of managing credit risks:

1. Standardised approach based on credit rating and risk weight,
2. Internal rating-based approach with a basic foundational and higher-level advanced approach,
3. Credit risk mitigation steps through CDS and counter party risk approaches as also through securitisation.

**(1 Mark for each correct point = Max. 3 Marks)**

There are other methods to enable proper credit rating:

1. **Risk based pricing:** Where the risk of default is higher, the interest rate will be increased.
2. **Credit insurance:** The lender can transfer the risk to an insurer such as in housing loans to ensure that the mortgage is secured.
3. **Tightening:** Lender can tighten the norms for lending.
4. **Diversification:** By lending to a greater number and kinds of small borrowers to diversify the lending pool.
5. **Covenants:** Covenants may be entered into with the borrowers for review, full payment in case of improvement in debt coverage ratio, audit of business operation etc.

(½ Mark for each correct point = Max. 2 Marks)

There can also be qualitative techniques of credit risk management duly implemented by three levels of approach as under:

- a. Transaction risk management
- b. Portfolio risk management
- c. Policies and processes that keep improving the risk management of all lending activities.

Financial institutions also attempt to mitigate lending risks by performing credit analysis on individuals and businesses by a review of the borrower's five C's which are capacity, capital, character, collateral and conditions.

(2 Marks)

### **ANSWERS TO CASE STUDY: 5**

#### **Multiple Choice Questions**

5.1 (A)

5.2 (C)

5.3 (D)

5.4 (D)

5.5 (C)

#### **5.6 Pure Risk**

Pure Risks are associated with uncertainties which may cause loss. In a pure risk situation, a loss occurs or no loss occurs – there is no possibility for gain. These uncertainties may be due to perils such as fire, floods, etc. or may arise from human action such as theft, accident etc.

(1 Mark)

**Distinguish Pure Risk from other risks**

There are certain risk events that can only result in negative outcomes such as fire accidents or leakage of harmful chemicals from a manufacturing plant. These risks are hazard risks or pure risks, and these may be thought of as operational or insurable risks. A good example of a hazard risk faced by many organizations is that of theft. There are different types of pure risks:

- Personal risks - It includes early death, sudden accident and disability, unemployment, etc.
- Property risks - reduction in value of assets due to physical damage, fire, theft, etc.
- Liability Risks - the risk of legal liability for damages accruing to customer, suppliers, vendors, etc. Such risks are also connected with compensation payable to employees for injuries and other harm afflicted in the workplace.

(½ Marks for each correct point = Max. 1½ Marks)

**Importance of insurance coverage for pure risks**

There are risks which are not insurable even though there may be no gain in them. These include:

**Fundamental Risks** which are impersonal in nature, present in the nature and the economy which has pervasive effects. Such include war, inflation, mass unemployment etc. Generally, these are not insurable and it is left to the government to deal with the effect of these events.

**Dynamic Risks** are risks which arise due to changes in the economy like fluctuations in price levels, consumer preferences, shift in technology etc. These are again not considered insurable as they are less predictable and pervasive.

However, **Particular Risks** are risks which have their origin in individual events which can be clearly controlled such as road accidents. These risks are considered insurable subject to conditions.

(½ Marks for each correct point = Max. 1½ Marks)

Risks are also categorized into hazard risks which is another term for pure risks which are insurable, while Control risks are pure uncertainty risks and are associated with project management and these risks are hard to quantify. Finally, there are opportunity risks which are also called speculative risks. These have opportunity for gain and hence are not insurable.

(1 Mark)

**5.7** The operational risk is important for management of company because of following reasons:

(a) The Companies Act 2013 (Sections 134 and 177) lays down clear expectations from Boards of organisations in assessing the robustness of risk management framework implemented by the company. Section 134 instructs that Board of Directors should include a statement on development and implementation of risk management

framework for the company, including identification of risks, which as per Board's opinion could threaten the very existence of the company.

Clause (e) of Sub-section 5 of Section 134 explains the meaning of the term 'internal financial controls' as "the policies and procedures adopted by the company for ensuring the orderly and efficient conduct of its business, including adherence to company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information."

Section 177 instructs that the Audit Committee shall review the risk management procedures implemented by the management.

Schedule IV instructs that Independent Directors are required to get assurance that systems of risk management are robust and defensible.

(b) Paragraph 4(c) of the Standard on Auditing (SA) 315 "Identifying and Assessing the Risks of Material Misstatement Through Understanding the Entity and Its Environment" defines the term 'internal control' as "the process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, safeguarding of assets, and compliance with applicable laws and regulations. The term "controls" refers to any aspects of one or more of the components of internal control."

(c) Clause 49 of the Listing Agreement, indicates that disclosures are to be made to the Board of Directors on risk management, on whether the company has laid down any procedures to inform Board members about the risk assessment and mitigation procedures.

(d) The ICAI Guidance Note on Audit of Internal Financial Controls over Financial Reporting has several sections pertinent to the understanding of operational controls underlying in the processes;

While the Guidance Note does not explicitly dwell on operational risk per se, the overall approach and methodologies mentioned in the Note rest on, and derive from an implied understanding of the auditor's understanding of operational risks and the mitigating controls of the organisation; for instance, the auditor is expected to have a thorough understanding of the automated and manual controls that lie in each of the processes that have a direct bearing on the financials of the organisation.

**(1 Mark for each correct point = Max. 4 Marks)**

**5.8** The role of the Risk Manager includes following tasks: -

1. Manage the implementation of all aspects of the risk function, including implementation of processes, tools and systems to identify, assess, measure, manage, monitor and report risks.
2. Select the most suited risk identification techniques and approaches.
3. Manage the process for developing risk policies and procedures, risk limits and approval authorities.
4. Monitor major, critical and minor risk issues.

5. Manage the process for elevating control risks to more senior levels when appropriate.
6. Management of risk reporting, including reporting to senior management.
7. Prepare high-level user requirements to assist in preparation of Project Initiation documents.
8. Liaison with Business users to prepare Functional risk specifications. Translate business requirements and functional needs into business / reporting and system specifications. Ensure technical specifications meet the stated needs of the business.
9. Generate project management documents.
10. Provide User Training for in-house developed risk management systems.
11. Conduct compliance & risk assessments.
12. Conduct and document audits of risk related compliance to industry standards
13. Define & develop risk policies, procedures, processes & other documentation as required.
14. Implement the risk management program and risk strategy. Ensure the risk management program is effectively integrated into product development and delivery methodology.
15. Participate in local and global discussions to formulate new or enhance existing risk management processes, policies and standards.

**(½ Marks for each correct point = Max. 6 Marks)**