# Final New Syllabus Paper - 6 A Risk Management

JUL 2021

Total No. of Case Study Questions - 5

Total No. of Printed Pages - 24

Time Allowed – 4 Hours

Roll No. ....

Maximum Marks - 100

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Answer to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate who has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

The Question Paper comprises five case study questions. The candidates are required to answer any four case study questions out of five.

Answers in respect of Multiple Choice Questions are to be marked on the OMR answer sheet only.

Answer to other questions to be written on the descriptive type answer book.

Answer to MCQs, if written in the descriptive type answer book will not be evaluated.

Please ensure to answer the MCQs relevant to questions as attempted in the descriptive answer book.

Candidates may use calculator.

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# CASE STUDY – 1 INTRODUCTION

Alpha Mining Ltd. (AML) is a big player in mining industry in India. Currently there is no formal risk management process in the company and is more regulatory focused. The Chief Financial Officer (CFO) is responsible for risk management activities also. The board of AML believes that in the current environment of mounting economic, regulatory, and marketplace pressures and

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constant technological disruption, virtually all industries face increasing strategic risk and so is the case of AML. The board is concerned that the same is not being managed properly currently and has asked the CFO to make a presentation in this respect.

#### **OBSERVATIONS BY THE BOARD**

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- In fact, in a recently concluded board meeting the chairman of the board wanted to know whether risks of AML are being managed to a high standard. Further, the rising number of litigations against AML is cause of concern especially considering the fact that there is no policy framed by the board in this respect. Such risks are not only increasing operational risks of AML but also there is potential for misrepresentation in the financial statement. The board has also expressed its concerned about the manner in which settlements against litigations are negotiated.
- 2. Mr. S Lal who has been recently inducted on the board and is a recognised expert in risk management has suggested that the primary way to receive assurance will be through confidence that AML has an effective risk appetite framework.
- 3. During the board meeting, the CFO of AML informed the board that AML has undergone an extensive performance audit by the regulator and numbers of observations have been made by them on environmental issues.
- 4. AML has in place information security policy but the internal auditors have pointed out number of breaches including breaches by end users.
- 5. Improving risk management framework is the key agenda for the board and the CFO has been authorized to take external help in this respect.

# ACTIONS TAKEN ON THE DIRECTIONS GIVEN BY THE BOARD

1. Considering the various issues raised by the regulators and the board, the CFO hired a risk management consulting firm. The risk management consultant has advised for the development of a risk management framework and Risk Appetite Statement (RAS) in order to articulate AML's risk position on all key risks including human health and the environment in

contaminated environments. He further advised that by developing a risk management framework, AML would be able to state its accepted level of risk relating to managing the environmental audits it conducts and would be conscious when making decision to either accept or manage risk more effectively and efficiently.

- 2. The consultant has also advised to express risk appetite into number of key areas to align with statutory responsibilities and strategic objectives of AML. In addition to this, the consultant also wants AML to focus on 'soft elements' identified by them that would influence the risk appetite. In a nutshell, he advised to define risk capacity in order to ensure that AML is remaining within constraints implied by its regulatory obligations, state its risk appetite and specific desires to achieve AML's objectives and distinguish limits and thresholds for its key risk categories and dimensions.
- 3. The internal auditors have suggested that issues relating to breaches by end users are to be addressed more appropriately in the information security policy especially covering end user computing (this refers to computing facilities made available to users based on the business requirements for accessing and/or processing the information independently), internet and email usages.

# Multiple Choice Questions

Choose the most appropriate answer from the answer options:

2×5

- (1.1) (1) Risk appetite, (2) risk capacity, (3) risk target, (4) risk tolerance and (5) risk limits are closely associated in risk management. Which one of the following arrangement shows the correct sequence in risk management in practice?
  - (A) 1-2-3-4-5
  - (B) 2-1-4-3-5
  - (C) 3-1-2-5-4
  - (D) 4-1-3-2-5

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- (1.2) Which one of the following is incorrect about the strategic risks?
  - (A) Unique to the organization.

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- (B) Damaging to the entire organization.
- (C) Associated with primary objectives of the organisation.
- (D) Easy to address with customary risk management methods.
- (1.3) While considering risk and uncertainty, the risk management team must be aware of that:

The consultant has also editized to express risk appetite into number of key

- (A) Risk assessment is the sole method of reducing uncertainty.
- (B) Risk can apply to both opportunities and threats.
- (C) Uncertainty should always be considered completely separate from risk.
- (D) Uncertainty should only be considered when reviewing long-term objectives.

users are to be addressed more informatiately in the information accordic

- (1.4) The Board of AML has asked your help so as to decide which type of risk framework is expected to improve efficiency by aligning strategy, processes, technology and people?
  - (A) Controls, risk and supervision.
  - (B) Corporate governance and control.
  - (C) Governance, risk and compliance.
  - (D) Supervision, audit and compliance.
- (1.5) One of the board members raised the question about potential benefits of the risk management to AML. Which one the following is not the potential benefits of risk management?
  - (A) Reduced cost of capital.
  - (B) More effective resource allocations.
  - (C) Increased understanding of entity objectives.
  - (D) Decreased inherent risk.

### **Descriptive Questions**

- (1.6) Describe any three 'soft elements' that in your opinion influence the risk appetite of an organization.
- (1.7) What are the advantages of viewing strategic risks as dynamic processes in an organisation?
- (1.8) While framing the Policy on Management of Litigation, what are the important factors which AML should consider for negotiating settlement so that operational risk arising from litigations can be minimised?
- (1.9) While assuming ownership of information assets, what are the points relating to end users that you would consider in the information security policy which the end users in general and particular for internet and email usages would be required to adhere to?

# CASE STUDY – 2 INTRODUCTION

Star Pharma is a leading player in the pharmaceutical industry. It is an integrated global pharmaceutical company engaged in the development, manufacturing, marketing, sale and distribution of generic, brand pharmaceutical and over the counter (OTC) products. The Company competes with different companies depending upon product categories, and within each product category, upon dosage strengths and drug delivery systems. Such competitors include the major brand name and generic and OTC manufacturers of pharmaceutical products. In addition to product development, other competitive factors include product quality and price, reputation and service and access to proprietary and technical information.

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Star Pharma has commercial operations in a number of established international markets with the opportunity for rapid growth in many emerging markets around the world. The chief operating officer (COO) believes that a global presence will allow the company to expand revenue base and manage risk through diversification. The COO and his team is expecting to capitalize on opportunities for growth within new markets that have opened up after the COVID-19.

The company has set a separate treasury in order to manage the forex risk and is headed by Chief Financial Officer (CFO). Two employees have been hired to monitor forex positions, exchange rates and use appropriate hedge products.

#### ISSUES FACED BY STAR PHARMA

- 1. Star Pharma has several OTC brands that are hugely popular in the market. In recent time quality issues have been raised by a significant number of customers. The management investigation in the matter has revealed that this happened because of weak control over the raw materials. In fact, audit team identified many more operational risks issues including the gaps in the procurement system. Frequent rejections in highly competitive OTC products segment have exposed the company to reputational risk.
- 2. As the Company operates on a global basis with offices or activities in Europe, Africa, Asia, and North America, it faces several risks inherent in conducting business internationally, including compliances. These laws and regulations include data privacy requirements, labor relations laws, tax laws, anti-competition regulations, import and trade restrictions, export requirements etc. Given the high level of complexity of these laws, however, there is a risk that some provisions may be inadvertently breached. Violations of these laws and regulations could result in fines, criminal sanctions against the Company, officers or employees, and prohibitions on the conduct of our business. Any such violations could also include prohibitions on products in one or more countries and could materially damage reputation, brand, international expansion efforts, and ability to attract and retain employees, business and operating results. The management believes that success depends, in part, on their ability to anticipate these risks and manage these difficulties.

- In addition to the foregoing, engaging in international business inherently involves a number of other difficulties and risks such as longer payment cycle, potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements and other trade barriers, difficulties and costs of staffing and managing foreign operations. These factors or any combination of these factors may adversely affect revenue or overall financial performance of Star Pharma.
- 4. Star Pharma has now started using extensively online mode of order taking, payment and delivery. The company has hired number of vendors for this purpose. The operating model has now been completely revamped. The company has now created data base of customers which helps in marketing new products. This has started showing results but has also exposed the Company with new risks including cyber risks. Recently, the Company was attacked by Malware which affected the operations of the Company for one day. Cyber security was not an agenda in the past. But with change in the operating model this has become one of the key risk of Star Pharma. The Board believes that now the Company will have to invest in cyber security to minimize the possibility of a having a cyber-loss and make the Company cyber resilient. For this reason they want a comprehensive review of Business Continuity Planning (BCP).
- 5. Currently Star Pharma has risk management system in place but it is not integrated. In other words it is looking for a unifying philosophy that draws together management of all types of risks. The Board wants that risk management team must look at the risks that could affect the core process or stakeholder expectation on an enterprise-wide basis. The Board is fully aware that risk management has become more important because of increasing stakeholder expectations and the ever-increasing ease of communication. The Board wants to be confident that risks have been

identified and that appropriate steps have been taken to manage risk to an appropriate level. Also, there is greater emphasis on accurate reporting of information by organizations, including risk information. In this backdrop, implementation of enterprise risk management (ERM) is being evaluated. While the management agrees with the need of ERM they are yet to take decision considering the cost involved in this decision.

# **Multiple Choice Questions**

Choose the most appropriate answer from the answer options:

2×5

- (2.1) Control Risk Self-Assessment (CRSA) is a powerful tool that may be used to support ERM. Which one of the following is incorrect with respect to ERM and CRSA?
  - (A) ERM covers all risks whereas CRSA covers specific risks.
  - (B) CRSA is driven by risk policy whereas ERM is driven by desire for improved operations.
  - (C) ERM is mainly risk concepts for entire operations CRSA is mainly workshops on risk and controls.
  - (D) CRSA is based on local risk registers whereas ERM is based on corporate risk reporting system.
- (2.2) As a part of the treasury team of AML, the CFO has asked you to do hedging by borrowing foreign currency, converting it to domestic currency, and investing the domestic currency. Which one of the following derivatives is close to the above mentioned activities?
  - (A) Forward purchase contract.
  - (B) Option contract.
  - (C) Interest rate swap.
  - (D) Currency swap.

- (2.3) During the review of receivables, the CFO found that a bill amounting to GBP 10,00,000 was overdue for payment for more than 30 days. The CFO has asked you to verify whether the overdue bill has been crystallized by the Authorised Dealer by applying correct exchange rate. Which one of the following is the correct exchange rate for crystallization of the overdue export bills?
  - (A) Bill selling rate
  - (B) TT selling rate
  - (C) FC selling rate
  - (D) TT buying rate
- (2.4) Star Pharma is expecting EUR 5 million in six months' time and the treasury has decided to carry out cross-hedge. Which one of the following explains the cross-hedge?
  - (A) It involves the use of forward contracts, a combination of spot and market and money market transactions, and other techniques to protect from foreign exchange loss.
  - (B) It is a technique designed to hedge exposure in one currency by the use of futures or other contracts on another currency that is correlated with the first currency.
  - (C) It involves an exchange of cash flows in two different currencies between two companies.
  - (D) It involves a loan contract and a source of funds to carry out that contract in order to hedge transaction exposure.
- (2.5) The CFO of Star Pharma has asked the treasury team to negotiate a forex swap with the bank. In this context, what type of forex-swap is to be negotiated when it is to be done from tomorrow until the next date?
  - (A) Tom-next
  - (B) Spot-next
  - (C) Cash-next
  - (D) Forward-next

# Descriptive Questions

- (2.6) In the changed business model, the management of Star Pharma has identified vendor risk management as the key area of cyber security risk management. In the light of this what would be your suggestions to the Company for vendor risk management?
- (2.7) What are the two defining characteristics of cyber-resilient organization?

  What is 'Reverse Stress Testing' in case of a cyber-resilient organization?
- (2.8) You are required to prepare a short note for the board explaining what the ERM is and list its features of so that the board can take a decision about the implementation of the same. Also, explain how ERM is linked with the BCP?
- (2.9) The treasury team of Star Pharma has been using forward contracts as tool to hedge forex risks. The CFO is not satisfied with this after the performance review of the treasury function. Prepare a note for CFO listing advantages of a 'currency option contract' as a hedging tool compared with the 'forward contract'.

# CASE STUDY – 3 INTRODUCTION

Mr. Shyam, an entrepreneur, came across the Taxation Laws (Amendment) Act, 2019 which offered a low tax rate of 15% (plus surcharge and cess) to new manufacturing companies, subject to fulfilment of certain conditions. After thinking over, he consulted his like-minded business colleagues and decided to commence a new manufacturing public limited company. They also agreed to Mr. Shyam's proposal and agreed to be promoters of the company along with him. They discussed various modalities and procedures involved in commencement of the company.

### DISCUSSIONS OF THE PROMOTERS

(i) They had two alternatives, ie., to pursue Project X (manufacturing Product A) or Project Y (manufacturing Product B). The following are the data for both the Projects with five possible events:

Possible Event	Project X		Project Y	
	Cash Flow (₹ 000)	Probability	Cash Flow (₹ 000)	Probability
L	18,000	0.22	28,000	0.25
M	16,000	0.18	25,000	0.19
N	21,000	0.14	29,000	0.16
0	19,000	0.25	27,000	0.24
P	22,000	0.21	16,000	0.16

- (ii) The promoters are very much aware that the activities, whether financial or non-financial, would get affected by the external environments. They want to have a comprehensive understanding of the significant factors and the aspects underlying the same.
- (iii) The above referred Act allowed the import of new machinery which can be used in the manufacturing of the product.
- (iv) The promoters are convinced that the risk management is one of the important pillars of Governance and arguably the only tool to deal with business uncertainty. Risk management is recognised as an integral component of good management and governance. It is an iterative process consisting of steps, which, when undertaken in sequence, enable continual improvement in decision making.
- (v) Right from day one, they wanted to go in for the implementation of Enterprise Risk Management (ERM) which is a tool that assists an organisation in meeting its business objectives.

- (vi) They want to employ a team of internal auditors i) for the audit of internal controls to ensure that they are meticulously designed and operate efficiently ii) look into the risk governance framework established by management to confirm that they operate as intended and iii) monitor constantly the risk management program for its effectiveness and improvements.
- (vii) The promoters are also aware that as public limited company of a particular size, it has to comply with more number rules and regulations than a private limited company especially in reporting of internal financial controls over financial reporting.
- (viii) Today's business is constantly changing and seems to become more complex every day. Therefore, the decisions of the management involve the recognition of risk and opportunity.
- (ix) They also agreed to consider exporting the products manufactured by the proposed company, after exploring the market feasibility. Few spare parts for imported machinery will have to be paid in foreign exchange only. Mr. Shyam is made in-charge to handle the foreign exchange transactions for the same.
- (x) The promoters realised the importance of Information Technology (IT) and its pivotal role in the business. IT is no longer an enabler, but it has now become the driver of business.
- (xi) The proposed company, Shyam Polyfibres Limited (SPL) would have to face challenges such as, i) finding out enough finances to commence and run the company, ii) proper planning, iii) employing qualified and dedicated workforce, iv) stiff competition etc. The promoters are aware of these issues and have decided to boldly face and resolve them by proper planning.
- (xii) SPL would use a Risk Monitoring Tool (RMT) to track progress of risk management using qualitative assessment of probability and impact of risk.
- (xiii) In order to predict the sales of the proposed manufacturing of the new product, SPL would use a computer software that generates thousands of possible outcomes from the distribution of inputs which are specified by a user.

# **Multiple Choice Questions**

Choose the most appropriate answer from the given options.

 $2\times5$ =10

- (3.1) During the execution of the project of SPL, a new risk was identified, which was not identified earlier in the Risk Identification exercise. Which of the following would not potentially enable a new risk to be identified?
  - (A) Running some trend analysis reports to analyse incidents.
  - (B) Recording incidents in a register.
  - (C) Conducting root cause analysis.
  - (D) Flow-charting the significant business processes.
- (3.2) The auditor of SPL is trying to discharge his liability on the company's Internal Financial Controls over Finacial Reporting in an IT environment. He is assessing the strength of the control environment used in the automated control activities. For ensuring timeliness, accurate and reliability of the information used in the financial control, the auditor most likely would focus his attention on the underlying:
  - (A) Application systems
  - (B) Operating systems
  - (C) Financial reports
  - (D) Database management systems
- (3.3) SPL most likely would have employed which of the following in the software referred to in item (xiii) of the 'outcome of discussion of the promoters'?
  - (A) Bootstrap Simulation
  - (B) Monte Carlo Simulation
  - (C) Historical Simulation
  - (D) Linear Simulation

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- (3.4) In the context of ERM, proposed to be implemented by SPL, which of the following would best refer to a 'hazard risk'?
  - (A) Risk associated with the strategic planning of the company.
  - (B) Risk associated with the operations of the company.
  - (C) Adverse financial losses of the company those are associated with pure risks.
  - (D) Adverse financial losses of the company those are associated with diversifiable risks.
- (3.5) The RMT employed by SPL is known as:
  - (A) Risk Event Maps
  - (B) Risk Scorecards
  - (C) Risk Heat Maps
  - (D) Flow Charts with Risk Flags

# **Descriptive Questions**

- (3.6) Calculate Coefficient of variation of Project X and Project Y and suggest which Project should be undertaken by the promoters. Show your workings.
- (3.7) 'External environment can affect the company directly or indirectly.'

  Examine the statement by discussing various aspects of the significant factors affecting the external environment which in turn could affect SPL's ability to create value in the short, medium and long term.
- (3.8) What is foreign exchange exposure and discuss foreign exchange exposures that SPL might face in its proposed transactions?

#### CASE STUDY - 4

#### INTRODUCTION

Organic Tea Limited (OTL) is a fast growing chain of tea stores that are typically located close to places like educational institutions, railway stations and bus stations across India. It has company-operated as well as licensed stores. Licensed stores generally have a lower gross margin but a higher operating margin than company-operated stores. Under the licensed model, OTL receives a reduced share of the total store revenues, but this is more than offset by the reduction in Company's share of operating costs as these are primarily incurred by the licensee.

In licensed store operations, OTL leverage the expertise of our local partners and share its operating and store development experience. Licensees provide improved access to retail space at strategic locations. Most licensees are prominent retailers with in-depth market knowledge and access. As part of these arrangements, OTL receives royalties and license fees from the licensees and it also sells certain kitchen equipment to licensees for use in their operations. Employees working in licensed retail locations follow the detailed store operating procedures and attend training classes similar to those given to employees in company-operated stores.

After the success of tea business, OTL has incorporated a wholly owned subsidiary named Organic Toys Limited. The management has an ambitious target for this business segment.

#### OBSERVATIONS ON BUSINESS REVIEW BY THE MANGEMENT

1. OTL depends upon relationships with tea producers, outside trading companies and exporters for supply of quality tea. The management believes that the supply-chain management is one of the key reasons why the Company has been able to reduce operating costs and improve operating margin and the risk of non-delivery on such purchase commitments is remote.

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- 2. The management believes that customers choose among tea vendors primarily on the basis of product quality, service and convenience, as well as price. However there is a direct competition from large competitors in quick-service restaurant (QSR) sector with restaurants and other retailers for prime retail locations and qualified personnel to operate both new and existing stores.
- 3. Many of information technology systems, such as those we use for our point-of-sale (POS), web and mobile platforms, including online and mobile payment systems, delivery services and rewards programs, and for administrative functions, including human resources, payroll, accounting and internal and external communications, as well as the information technology systems of licensees and other third-party business partners and service providers, whether cloud-based or hosted in proprietary servers, contain personal, financial or other information that are critical for business growth. The board is concerned about a material breach of information technology systems that result in the unauthorized access, theft, use, destruction or other compromises of customers' or employees' data or confidential information of the Company stored in such systems, including through cyber-attacks or other external or internal methods, it could result in a material loss of revenues from the potential adverse impact to reputation and brand.
- 4. The management is aware that cyber attacks can result in enormous business losses financial, investor confidence, and corporate image. They can also lead to serious legal issues, especially when more and more private data are being captured, stored, and transmitted across the public Internet. These losses and legal challenges can have a small, short-term impact but more often than not, they have a significant, long-term impact. According some basics of disaster recovery plan (DRP) is in place but there is no focus on business continuity plan (BCP).

- 5. Internal auditors have identified serious lapses in information security system and procedures. Significant capital investments and other expenditures could also be required to remedy cyber security problems and prevent future breaches, including costs associated with additional security technologies, personnel, experts and credit monitoring services for those whose data has been breached.
- 6. Earlier, risk management was being supervised by the audit committee of the board (ACB). However, considering the significant risk Company is facing with a growing business a separate risk management committee (RMC) has been created. There are few common members in the RMC and ACB. The RMC has been asked by the board to use 'scenario analysis techniques' in the key risk area to assess the potential risk. In fact one of the board members remarked that "scenario analysis was more about potential response and mitigation than exact probability".

#### **FURTHER DEVELOPMENTS**

1. OTL has been banking with PQX Bank for last five years and has become an important client of the bank. The Company has been borrowing heavily in order to finance its growth. The track record of servicing debt is very good. In addition to the interest income, the Company provide a significant amount of fee income. The following financial summary has been presented to the bank:-

#### INR

Total sales	140,00,000
Total assets	35,00,000
EBIT	4,00,000
Debt as a percentage of total assets	70%
Capital turnover	10 times
Inventory days	30
Receivable days	1
Payable days	m= 11 nz = 13
Annual sales growth (average, last three years)	120%
Dividend pay-out ratio	20%

- 2. The management of the Company believes that next year sales will grow by 100%. Currently the company is using its cash credit limit of INR 5,00,000 and expecting an increase in the cash credit limits. Term lending is no longer an option, as the Company has reached the bank's limit of total gearing.
- 3. The Company has a small treasury and it has made investment in 15 listed equity shares and few mutual funds. The performance of the portfolio is monitored on a regular basis and the Company has implemented VaR (Value at Risk) techniques in the portfolio management.
- 4. PQX Bank has refused to support working capital facility for Organic Toys Limited as the performance of the company is not good. The management, however, is still going ahead with expansion by investing own fund mainly using 'over-trading'.

# **Multiple Choice Questions**

Choose the most appropriate answer from the answer options:

 $2\times5$ =10

- (4.1) If the working of the company is showing indicators such as (i) reliance on long term debts, (ii) offering longer credit period, (iii) higher level of inventory, (iv) rapid decreasing sales and (v) deteriorating current ratio, which of these indicators are reflections of 'overtrading' in the context of working capital management?
  - (A) (i), (iii) and (iv) only.
  - (B) (ii), (iii) and (v) only.
  - (C) (i), (ii) and (iii) only.
  - (D) (ii) and (v) only.

- (4.2) Which one of the following is incorrect with respect to risk mitigation process?
  - (A) Recovery requirements are developed after the risk assessment phase and include data from the business impact analysis.
  - (B) Recovery options must fit within the constraints of the recovery requirement.
  - (C) Existing controls and risk mitigation solutions already in place should be reviewed after requirements and options are reviewed.
  - (D) Determining the cost, capability, effort to implement, quality, control, safety, and security of each option under consideration.
- (4.3) Which one of the following is not correct with respect to DRP/BCP?
  - (A) Performing backups of critical data on servers, in and of itself, is a good start but does not constitute a disaster recovery plan.
  - (B) BCP is subset of DRP.
  - (C) BCP/DRP can provide an opportunity for a company to evaluate and improve its business processes.
  - (D) When developing a BCP/DRP you need to look at the three core components of business: people, process, and technology.
- (4.4) Which one of the following is not correct with respect to VaR?
  - (A) VaR is solely a measure of downside risk.
  - (B) In delta-normal method of VaR calculation assets assumed to be normal.
  - (C) If there is sudden spike in volatility, the historical simulation VaR will overstate actual risk.
  - (D) Simulation VaR handles non-normality.

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- (4.5) The CFO of the Company is in the process of evaluating performance of investment in equity. In this context, he wants to understand how R-squared is related with the risk. In your opinion, the ratio of diversifiable risk to total risk of a security should be called as
  - (A) R-squared.
  - (B) 1 minus R-squared.
  - (C) Beta.
  - (D) Sharpe Ratio.

#### **Descriptive Questions**

- (4.6) How much increase in the cash credit is required in order to fund increased working capital requirements of OTL? Give reply through stepwise calculation.
- (4.7) It is common to have overlap between ACB and RMC in terms of common members in a company like OTL but the overlap in terms of roles should be avoided. What would be your suggestions about the roles of members of RMC and ACB so that there is no overlap in terms of their roles?
- (4.8) Would you agree that "scenario analysis is more about potential response and mitigation than exact probability"? Support your views by giving reasons.
- (4.9) Based on the information given in this case study, what would be your suggestions in a sequential manner to manage operational risks to the expectations of the board?

# CASE STUDY – 5 INTRODUCTION

Ms. Jamuna is having 10000 sq. feet of vacant land, situated in the heart of Chennai city. She inherited the above vacant land. She also holds fixed deposits of ₹ 4 crores in a nationalised bank.

#### THE PROJECT

She wanted to construct twelve apartments in the vacant land, keeping one apartment as her own residence. She is mulling over two options; to let out on rent the eleven apartments for offices or let out the apartments as "service apartments". There is a famous marriage hall nearby the vacant land. She expects that there will be demand for the service apartments during marriage seasons and other functions held in the marriage hall and also, she feels that there will not be many hassles in the same in (i) collecting rent and (ii) constant attention to the maintenance of the apartments.

#### PROJECT FUNDING

She needs a total amount of ₹ 4.70 crores to construct the apartments. She can utilise the bank fixed deposits towards construction. For the balance of the amount, she requested her cousin Mr. Deepak, who is residing in USA, to send a loan which would be repaid to him after 5 years. She agreed to pay an interest of ₹ 5 lakhs per annum and the same would be paid to his bank account maintained in India. Mr. Deepak agreed to send her the amount in US dollars, once she completes the spending from the closure of fixed deposits.

A month after giving his acceptance, Mr. Deepak told her that as he is tied up urgently with a financial commitment, he would be requesting his friend Mr. Tony who is a resident of Nigeria to send Ms. Jamuna 1 lakh US dollars through banking channel. She has to pay an interest amount every year @ 6% and the repayment of the loan to Mr. De Martin, Mumbai at the end of five years.

As an alternate to obtaining loan from Mr. Tony, Ms. Jamuna considers the possibility of obtaining a bank loan. The bank would charge her 9% and she proposes to request the bank to reduce it to 8%.

#### REVENUE ESTIMATES

The probability is estimated at 70% occupancy, if let out as apartments and 60% occupancy, if let out as service apartments. It was expected by Ms. Jamuna that in a worst-case scenario, she may incur a loss of ₹ 12 lakhs and ₹ 10 lakhs in case of letting out as individual apartments and service apartments respectively.

# **CONSTRUCTION RELATED ISSUES**

For the construction, she approached a qualified engineer-cum-builder and requested him to provide detailed plans, procedures for getting necessary approval from the concerned Governmental departments, estimates, stages of project, quality and specification of materials to be used throughout the construction, details of the supervisors and break-down of payments to be made by her at various stages. She wanted to have a comprehensive construction agreement embedding all the details, especially the escalation clause (refers to the provision in the contract to increase the agreed rates, if the inputs for construction increased beyond a certain level).

She requested the engineer to periodically appraise her of the situation by holding meetings at the end of each major activity of the project. She also insisted that the supervisors employed by the engineer have to report to her about the risky situations and hazards in the construction site regularly so that precautionary steps could be taken to ensure the safety of the workers. However, she is sceptical about the skill sets of the workers, as finding and employing skilled workers has become a tough job.

# MAINTENANCE OF RECORDS

Ms. Jamuna is very keen in maintaining meticulous records of the construction. She would also like to maintain a dairy of events (akin to a risk register), noting down all the events, problems faced and their corresponding solutions. But she is not fully aware of the risks and vulnerabilities that she would face during the construction.

She has read somewhere that control risks are often associated with project management. In these circumstances, it is known that the events will occur, but the precise consequences of those events are difficult to predict and control. Therefore, the approach would have to be based on minimizing the potential consequences of these events. Hence, she wanted to have a list of specific risks to the project, sorted on their relative importance, and consequences.

# Multiple Choice Questions

Choose the most appropriate answer from the given options.

 $2\times5$ 

- (5.1) A risk may still occur that the apartments may lie vacant or there would be no occupancy of service apartments, even when there is no significant change in the economy of the country. This risk may be classified as
  - (A) Static Risks
  - (B) Country Risks
  - (C) General Risks
  - (D) Opportunity Risks
- (5.2) Which of the following risk identification techniques that the supervisors would most likely use for reporting to Ms. Jamuna on the risky situations and hazards in the construction site?
  - (A) Surveys
  - (B) Direct Observations
  - (C) Incident Analysis
  - (D) Scenario Analysis
- (5.3) If in the near future, the nearby marriage hall is converted to a shopping mall, Ms. Jamuna most likely would face which of the following risks in case she has decided to let the building as service apartments?
  - (A) Credit Risk
  - (B) Economic Risk
  - (C) Controllable Risk
  - (D) Market Risk

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- (5.4) Which of the following techniques for measurement of interest rate risk, the bank would not consider, if Ms. Jamuna submits a proposal for a bank loan asking the bankers to determine the rate of interest?
  - (A) Value at Risk
  - (B) Simulation
  - (C) Monotonicity
  - (D) Maturity Gap Analysis
- (5.5) Which of the following would least likely be included in the diary of events maintained by Ms. Jamuna?
  - (A) Identify the Risk
  - (B) Analyse the Risk
  - (C) Evaluate or Rank the Risk
  - (D) Treat the Risk

# **Descriptive Questions**

- (5.6) Discuss the factors that would create vulnerabilities and associated risks in the construction of the apartments by Ms. Jamuna, by drawing references from the case study.
- (5.7) Discuss the risk and uncertainty in letting out the building by Ms. Jamuna either as individual apartments or service apartments.
- (5.8) Explain how Ms. Jamuna's bank would view the receipt of money from Mr.

  Tony and what measures that the bank would employ to check the veracity of the transaction and compliance with applicable laws for foreign loans?