

**Final New Syllabus
Paper - 6 A**

Roll No. **Risk Management**

JAN 2021

Total No. of Questions – 5

Total No. of Printed Pages – 24

Time Allowed – 4 Hours

Maximum Marks – 100

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Answers 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 comprise five case study questions. The candidates are required to answer any four case study questions out of five.

Answer 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.

Candidates may use calculator.

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CASE STUDY : 1

About the Company :

- BCSPL, situated in TIDEL Park, Chennai, is providing computer system related services to offshore major Information Technology (IT) companies. It was established in the year 2015 and has a good reputation in its provision of services. BCSPL has 300 staff consisting of software professionals and accounting and administrative staff. At present Virtual Office Management System (VOMS) is enabled in the laptop computers of about 30% of its staff. BCSPL is thinking of adopting VOMS for the working of its entire staff members.

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VOMS :

- VOMS is a service in which a range of functions relating to a company is provided that facilitates their staff to work remotely by accessing such functionalities through Internet. The main aim of VOMS is to enable the staff members to seamlessly connect to the computing services of BCSPL irrespective of the time and geographical distance. BCSPL proposes to approach a cloud services provider to hold the data on cloud and run cloud-based software services.

New Proposal :

- To accomplish, expanding VOMS to 100% of its staff, SPL proposes to buy good quality laptops and provide them to the remaining members of the staff.

Security concerns of BCSPL :

- With the increase in cyber-attacks and the important and confidential nature of the data being handled, BCSPL is very much concerned about the possible compromise of the data. Cyber-attack may happen in the form malicious software attacks, hacking, phishing, ransomware attacks etc. The staff may not be thoroughly aware in the security aspects of the system. Mr. Peter, BCSPL's IT manager suggested to implement robust security measures including installation of strong firewall mechanism, installation of Virtual Private Network (VPN) etc., to counter the increasing security risks.

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Integrating Risk in the Strategic Planning Process :

- As the proposed adoption of VOMS is a strategic move by BCSPL, the strategic risks associated with the same have to be closely monitored as they would have an impact on BCSPL's ability to deliver its goals which are generally articulated in the strategic plan or intent document of BCSPL. Given the velocity with which threats and risk events strike, BCSPL would find it useful to integrate significant risk factors in the strategic planning processes.
- The management knows that the strategy of BCSPL should make it clear as to how it intends to mitigate or manage risks and maximize opportunities and BCSPL should develop objectives and strategies accordingly by allocating the resources in a planned manner.

Risk Management :

- As the new proposal might bring-in many unknown risk factors, BCSPL wants to (i) embed risk management and internal controls into its various operations and (ii) make sure that enterprise-wide approach to risk management is developed and communicated across BCSPL. BCSPL requested Mr. Kishore, the Risk Manager, to suggest some techniques to achieve the above.
- BCSPL is aware that the primary responsibilities for risk management and the associated controls are with the management and the management is required to adopt suitable policies, procedures and strategies as the philosophy of embracing the risk management increases day-by-day. BCSPL is required to show that effective risk evaluation has revealed the risks that BCSPL is exposed to and have appropriate controls in place that would prevent materialisation of possible risks.

Term Loan from Bank :

- To meet the needs of purchase of laptops, BCSPL decided to approach its bankers for a term loan for ₹ 2 crores.

You are required to answer the following questions :

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Multiple Choice Questions

Choose the most appropriate answer from the given options :

2×5

= 10

(1.1) Which of the following statements is not true about the new proposal of BCSPL bringing in risks ?

- (A) Rapid changes in information systems can change the risks relating to internal controls.
- (B) Significant expansion of operations can strain controls and increase the risk of a breakdown in controls.
- (C) New personnel may have the same focus on understanding of internal controls.
- (D) Incorporating new technologies into information systems may change the risk associated with internal controls.

(1.2) Which of the following is an internal risk threat metric about the cyber-risk that BCSPL may face in its proposal to implement VOMS in all the computer systems ?

- (A) The number IT system requests emanating from unidentified IP addresses.
- (B) The number of IT controls that have been self-certified as working correctly.
- (C) The number of IT security incidents reported by similar organisations in the past one year.
- (D) The number of social engineering attempts reported within BCSPL.

(1.3) Mr. Peter's suggestion is an example of :

- (A) risk control
- (B) risk avoidance
- (C) risk transfer
- (D) risk retention

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(1.4) The proposal of BCSPL would have an impact on the stakeholders and while taking such decision, the management least likely would consider :

- (A) Information about the internal and-external environment.
- (B) Recognition of risk and opportunity.
- (C) Deploying scarce resources and recalibrates activities to changing circumstances.
- (D) Risk of legal liability for damages accruing to customers.

(1.5) Before approving the term loan, if the banker performs an inadequate check on KYC of BCSPL and assuming that a violation is committed by BCSPL, it would be known as:

- (A) Regulatory Risk
- (B) Credit Risk
- (C) Sanction Risk
- (D) Control Risk

Descriptive Questions

(1.6) Suggest some best practices to address the data privacy and cyber-security risks in the VOMS proposed to be implemented by BCSPL. 6

(1.7) Explain the risk management techniques that Mr. Kishore would suggest to BCSPL. 5

(1.8) Discuss the integrating of risks in the strategic planning process of BCSPL. 4

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CASE STUDY : 2**About BHSS :**

- BHSS is running classes for higher secondary education in Madurai, Tamil Nadu since 1995. It is following rules and regulations, syllabus and examination of Tamil Nadu Board of Higher Secondary Education (TNBHSE) under Department of Education, Government of Tamil Nadu. The school is famous for its teaching and coaching and has produced many state level rankers. The toppers got admission into prestigious engineering and medical colleges on merit. For the academic year, the school had a total strength of 1200 students.

BHSS School Core Committee (BSCC) :

BSCC, consisting of twelve committee members, is running the school. It met in April 2020 and discussed the various aspects of the pandemic situation affecting the functioning of the school and its teaching and coaching activities. Mr. Pandian is the Chairman of BSCC. The following issues were discussed at the meeting:

- **New Mode of Teaching:** Because of the present pandemic situation, the students may not be able to attend the school. Therefore, it has been decided to teach the students online through Internet.
- A committee, viz., Online Teaching Committee (OTC) is to be formed consisting of 5 teachers and 2 committee members, to help in preparing and testing the teaching materials and conducting online classes to students. The online learning module would be named Bright Digital Learning Module (BDLM).
- Necessary technology infrastructure is to be created for running the online classes such as buying suitable computers, software, audio-video (AV) equipment, printers and high-speed Internet data connection and devices. Besides the above, latest anti-virus software and suitable firewall mechanism are to be installed to prevent virus attack and hacking attempts.

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- It was also decided to conduct online examination for the students at frequent intervals. The examination content would be created by the respective class teachers and supervised by the OTC members.
- Training to teachers and students: Sufficient training on the preparation of teaching and examination contents to be given as well as training to be given on the delivery of content as well as handling the AV equipment.

The teachers who are not familiar with computers are to be additionally trained.

- A technical support team will be made ready who will support not only the teachers handling the online classes but also the technical queries received from the students. Suitable dashboards would be displayed in the interface of BDLM.
- Online Class Fee Collection : It is initially decided to collect ₹ 1,000 per month from each student as online class fee.
- It is to be ensured that the online classes are to be commenced on-time. Periodic updates would have to be given to each parent's registered mobile number and / or email account.
- BSCC members are aware that when hosting BDLM online, BHSS would face a variety of Internet Security Risks (ISR). Each aspect in the online BDLM can be a possible target of cyber-attack.

Adoption of Enterprise Risk Management (ERM) approach :

- In pursuant to the discussions, the BSCC members decided to study and adopt risk management strategies and practices throughout the operations of BHSS. They would like to engage in the process of assessing risk and acting in such a manner, or prescribing policies and procedures, to avoid or minimize loss associated with such risk.
- BSCC members are considering the option to prepare a list of possible risks and the proposed treatment of such risks.

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Projection of Risks :

- BSCC members developed hypotheses based on financial projections and estimated a possibility of 30% in failing to achieve the projected collections if there is a fall in 25% in admission of students to the online classes. Different scenarios were analysed and calculations were made on the sensitivity of the projections by changing the assumed parameters, such as, the number of students who might enrol for various courses, fee collection from each student, the duration of the course etc.

Bank Loan Proposal :

- The committee estimated a capital expenditure of ₹ 60 Lakhs and decided to approach Cholan Bank Limited (CBL) for a term loan of ₹ 50 lakhs repayable in 5 years and a working capital loan of ₹ 10 Lakhs. The members of BSCC offered to give their personal lands and buildings as collateral to the proposed loans and would act as guarantors of the loans. The market value of the collateral offered is ₹ 2 crores. BHSS did not have any previous loans either with the bank or from others.

You are required to answer the following questions :

Multiple Choice Questions

Choose the most appropriate answer from the given options :

2×5
=10

- (2.1) Which one of following most likely would be of some help to BHSS, if ERM approach is adopted ?
- (A) To define the risk appetite of the organization.
 - (B) Align annual performance goals with risk identification and management.
 - (C) To assess the company's risk profile, risk appetite and key areas of risk.
 - (D) Define & develop risk policies, procedures, processes & other documentation as required.

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- (2.2) The primary objective of Risk Treatment methodology proposed to be adopted by BHSS would be to:
- (A) Give a response to risks.
 - (B) Ease the pressure from parents and students.
 - (C) Comply with the guidelines relating to the pandemic situation issued by the Government.
 - (D) Conduct periodic risk assessments.
- (2.3) In the hypotheses developed by BSCC members, there might be a risk of acceptance of hypotheses and the associated projections that should have been rejected. Such a situation is best known as:
- (A) Design Level Error
 - (B) Transaction Level Error
 - (C) Type I Error
 - (D) Type II Error
- (2.4) Which of the following would not be considered as an inherent risk for the ISR that would be faced ?
- (A) Identity Theft
 - (B) Inadequate Content
 - (C) Impersonation
 - (D) Inadequate Authentication
- (2.5) By introducing BDLM, BHSS is attempting to convert negative risk events into positives by creating a focussed group of experts who brainstorm on breakthrough proposals that could help BHSS move in a positive direction. This contemporary phenomenon is commonly referred to as
- (A) Incident Analysis
 - (B) Scenario Analysis
 - (C) Idea Funnel
 - (D) Risk Heat Maps

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Descriptive Questions

- (2.6) Discuss the risks that would be faced by BHSS in the current pandemic situation and the proposed introduction of BDLM. 6
- (2.7) Explain the credit risk components that CBL would consider with specific reference to the loan proposal of BHSS. 5
- (2.8) Briefly explain the difference between Scenario Analysis and Sensitivity Analysis. 4

CASE STUDY : 3

About the Company

Blue Hospital (BH) is a reputed chain of hospitals located in the National Capital Region (NCR). The BH package of services includes: inpatient hospital delivery services, outpatient ambulatory services, home health, drug rehabilitation and alcohol treatment and retail services including diagnostic, laboratory, sports medicine, rehabilitation and imaging. BH's trauma center is one of the NCR's busiest. In addition BH operates one of the only air ambulance services in the region and has its own health insurance company providing health benefits for its employees and others.

Review of Risk Management Function

BH's risk management function had been outsourced to a single firm named RLM for approximately eight years. Immediately after joining BH as a Chief Risk Officer (CRO), Ms. Sana commissioned an independent assessment of the risk management function as she was uncertain whether outsourcing model was an effective risk management structure for BH. The Board has asked Ms. Sana to do her own assessment also of the existing risk management practices after reviewing the findings of that independent study from the outside firm. The Board has also asked the CRO to consider Delphi and Bow-Tie techniques of risk analysis.

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Observations made by CRO

1. The studies suggested that the circumstances that led to the initial outsourcing decision no longer existed. Also, BH had grown considerably in size and complexity to warrant both a high level of direct accountability by a senior leader and their own team and a strategic approach to the management and mitigation of risks. Another issue these processes uncovered was that the outsourcing model was less effective in proactive data mining and trend analysis that could be used to create actionable risk and quality initiatives to prevent or mitigate risk events in the future.
2. BH did not have a forum to look across the organization to assess interrelated risks and potential impact on the organization or how multiple risks could correlate.
3. The CRO is also concerned that Business Continuity Plan (BCP) is not properly implemented in the organization. Also, employees think that there is no difference between Enterprise Risk Management (ERM) and BCP. One of the Audit Committee of Board (ACB) members has remarked that ERM approach and the business impact analysis approach are very similar and there is no difference.
4. The CRO has flagged the fact that risk culture within BH must improve and there is no narrative approach of risk management in place for those risks which cannot be adequately or accurately reflected by a numeric or quantitative method. Therefore, while developing new risk management approach narrative approach to risk management must be considered especially considering the nature of business of BH.

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Action plan

After a presentation to the Board by the CRO, BH began a three-step approach to reestablish a risk management function in the organization and create a strategic approach to management of risks.

Step one was laying the groundwork or a design-build phase to create the foundation for a high functioning internal risk management department including adding the necessary business intelligence data structure.

Step two was the introduction into the organization of an ERM framework and the establishment of an Enterprise Risk Committee (ERC) at the highest level of the organization. It was determined that an advisory group of executives should serve together as a coordinating body to look at diverse risks to the organization from whatever source. The advisory group shall be called ERC and is chartered to look more expansively and from a strategic point of view at risks in order to understand the inter-relatedness and cumulative impact on the organization. Further, the selection of key individuals who will form part of the ERC will be based on a broad parameter to be developed by the CRO after taking inputs from a consultant and after obtaining approval of the Board. They will meet regularly not only to continually reassess the critical risks faced by the hospital but also to report on progress in each of the initiatives that is associated with critical risk.

Step three is focused on the maturation of the ERM approach to risk identification and management at a strategic level as well as the expansion of and integration of ERM principles throughout the organization.

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Multiple Choice Questions

Choose the most appropriate answer from the answer options :

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=10

(3.1) Which one of the following is incorrect with respect to ERM ?

- (A) It is a process effected by an entity's board of directors, management and other personnel.
- (B) It is applied in strategic setting and across the enterprise.
- (C) It manages risk to be within risk appetite.
- (D) It provides complete assurance regarding the achievement of entity's objective.

(3.2) What are some examples of internal drivers of an organization's risk culture ?

- (A) Resource allocation and risk attitude
- (B) Risk appetite and risk tolerance
- (C) Employee records
- (D) All of the options

(3.3) The Delphi Technique is a method that attempts to move a group of experts toward a consensus opinion. When using the Delphi technique in practice which one of the following is incorrect ?

- (A) Each individual expert in the group is asked a question. The answer that each expert develops individually after consulting the others in the group is reported to the entire group.
- (B) Each individual expert in the group is asked a question. The answer that each expert develops individually without consulting the others in the group is reported to the entire group.
- (C) The question reported at group level is posed again separately to the expert, who is instructed to consider revising their response based on the results that were reported to the group.
- (D) The question and response cycle continues for a predetermined number of rounds or until a consensus is achieved.

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(3.4) Which one of the following is incorrect about the bow-tie technique ?

- (A) The purpose of the Bow-tie technique is to demonstrate that sources of risk can lead to events that have consequences.
- (B) The event shown in the centre of the bow-tie would be listed in terms of the component of the organization that is impacted by the event. These components are people, premises, processes and products
- (C) The Bow-tie technique cannot be only used to illustrate the four types of controls namely preventive, detective and corrective but not directive.
- (D) The Bow-tie technique can be used in many ways, including the representation of opportunity risks.

(3.5) Which one of the following is not correct in reference to the sound risk culture in a company ?

- (A) At all level of the organisation understand and appreciate the positive and negative results that a risk event can bring.
- (B) An appropriate risk reward balance consistent with the risk appetite is achieved when taking on risks.
- (C) An effective system of controls commensurate with the scale and complexity is properly put in place.
- (D) Previous mistakes are not considered while shaping the right risk actions.

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Descriptive Questions

- (3.6) While recommending selection of individuals in the ERC, if you were hired as a consultant, what should be the three broad parameters ? **3**
- (3.7) Would you agree with the view that there is no difference between ERM and BCP ? Provide reasoned answer. **3**
- (3.8) How could a Narrative Approach be used to better identify and assess risks that are not easily quantified ? **4**
- (3.9) Outsourcing of services has its place in risk management. What are the five key issues you would consider to make sure that what has been outsourced meets the continuing needs of the organization and is consistent with its strategy, vision and brand promise ? **5**

CASE STUDY : 4

OE, the Company is a leading manufacturer of garments headquartered at Delhi. Its customers are located in Europe and the USA. Major portion (80%) of the revenue is from export business. OE has borrowed in foreign currency and INR as well.

The Company is exposed to the impact of interest rate changes primarily through its borrowing activities. The Company's objective is to mitigate the impact of interest rate changes on earnings and cash flows and on the market value of its borrowings. In accordance with its policy, the Company targets its fixed-rate debt as a percentage of its net debt between a minimum and maximum percentage.

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As the Company transacts business globally and is subject to risks associated with changing foreign currency exchange rates. The Company's objective is to reduce fluctuations associated with foreign currency exchange rate changes in its earnings and cash flow, enabling management to focus on core business issues and challenges.

The Company enters into option and forward contracts that change in value as foreign currency exchange rates change, to protect the value of its existing foreign currency assets, liabilities, firm commitments and forecasted but not firmly committed foreign currency transactions. In accordance with policy, the company hedges its forecasted foreign currency transactions for periods generally not to exceed two years within an established minimum and maximum range of annual exposure. Cross-currency swaps are used by the company to effectively convert foreign currency-denominated borrowings into INR denominated borrowings. It's also uses swaption and zero cost collar for hedging purposes.

Despite having a robust risk management practices the management of OE is concerned about the operating forex exposure. OE has been maintaining risk-register knowing well that a well-constructed and dynamic risk register is at the heart of a successful risk management initiative. However, during a risk review process it was uncovered that senior management has started believing that attending a risk assessment workshop and producing a risk register is a risk management obligations and therefore no ongoing actions are required.

Further, considering disruption in value chain in the garment business and its strong presence in Europe and it has a plan to open a garment manufacturing unit in Birmingham UK which will be wholly owned subsidiary of OE. The management believes this would reduce delivery time and hence would help in getting more business. Also the locational advantages enjoyed by competitors from Turkey can be addressed with this strategy. Recently number of buyers from Europe has started giving orders to suppliers in Bangladesh due to labour cost advantages and faster depreciating Bangladeshi Taka. Considering this OE has also plan to open a factory in Bangladesh.

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Multiple Choice Questions

Choose the most appropriate answer from the answer options :

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- (4.1) Suppose OE issued a callable bond two years ago and it has three more years to go before the first call date. If interest rates have fallen over the past two years and you believe rates will not stay this low and that it would be in the firm's best interest to lengthen the duration of the liabilities, which of the following is one potential strategy to accomplish the objective of lengthening the duration while also securing the lowering interest rate.
- (A) buy a payer swaption
 - (B) sell a payer swaption
 - (C) buy a receiver swaption
 - (D) sell a receiver swaption
- (4.2) Which of the following best describes a zero cost collar within the context of interest rate derivatives ?
- (A) A zero cost collar is a long (short) position in an interest rate cap and a short (long) position in an interest rate floor where the cost of the cap (floor) exactly offsets the revenue from the floor (cap).
 - (B) A zero cost collar is a long (short) position in an interest rate cap and a short (long) position in an interest rate floor where the cost of the cap (floor) is less than the revenue from the floor (cap).
 - (C) A zero cost collar is a long (short) position in an interest rate cap and a short (long) position in an interest rate floor where the cost of the cap (floor) is greater than the revenue from the floor (cap).
 - (D) A zero cost collar is an option that pays off only if interest rates remain within a designated range.

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(4.3) The modern long-term currency swap can be viewed as:

- (A) a spot sale and a forward purchase.
- (B) a combination of forward contracts, each of them having zero initial market value.
- (C) a combination of forward contracts, each of them having, generally, a non-zero initial market value but with a zero initial market value for all of them taken together.
- (D) a spot transaction and a combination of forward contracts, each of them having, generally, a non-zero initial market value but with a zero initial market value for all of them taken together.

(4.4) A cross-hedge

- (A) 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) 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) involves an exchange of cash flows in two different currencies between two companies.
- (D) involves a loan contract and a source of funds to carry out that contract in order to hedge transaction exposure.

(4.5) As the financing of a foreign project by the parent ____ relative to the financing provided by the subsidiary, the parent's exchange rate exposure ____.

- (A) increases; decreases
- (B) decreases; increases
- (C) increases; increases
- (D) decrease, decrease

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Descriptive Questions

- (4.6) Discuss the condition under which exchange rate changes may actually reduce the risk of foreign investment. **3**
- (4.7) You are hired by OE to review its operating forex exposure. Discuss two determinants of forex operating exposure. Bases on the information given in the Case Study, identify any one activity of OE which is likely to address the operating forex exposure ? What would be the implications of purchasing power parity for operating exposure ? **4**
- (4.8) What are the advantages and disadvantages of financial hedging of the firm's operating exposure vis-a-vis operational hedges and what are the advantages of a currency options contract as a hedging tool compared with the forward contract ? **4**
- (4.9) What is the purpose of risk register ? What would typically a risk register would cover ? Do you think there are disadvantages associated with the use of risk registers ? **4**

CASE STUDY : 5

About the Company

HC is a leading restaurant company headquartered at Mumbai. It has 500 outlets operating across India and is listed on both BSE and NSE. As a result of COVID-19 the performance of the company was not good during first half of FY 2020-21. But the company has now made started using extensively online mode of order taking, payment and delivery. 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.

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Recent Developments

Recently Company was attacked by malware which affected the operations of the Company for two days. Cyber security was not an agenda just six month back. But with change in the operating model this has become one of the key risk of HC. The Board believes that now the Company will have to invest in cyber security to minimize the possibility of a having a cyber loss. It is well known that even the companies with the best IT security and highest expenditure on cyber protection still suffer successful cyber-attacks. However, Companies need to have contingency plans for managing the financial impact on their balance sheet of a potential large loss from a cyber-attack. The management is aware that cyber-attacks have been responsible for many missed quarterly earnings reports, which have been punished by shareholders, credit providers and business counterparties. It is more expensive in terms of the interest rates charged to access funds through borrowing after the event has occurred, particularly if credit ratings have been impaired as a result of cyber-attack.

A recent internal assessment indicates that it is still operating at 60% of the Pre-COVID level and hence needs further fund for operations.

HC has also acquired a Company named PC which is in food delivery business. The revenue of the PC has been rising during last two years. PC however is poorly managed and the Board of HC believes that they can transform it well and this acquisition would create synergy in terms increase in revenue and saving in the operating costs. The owner would raise the fund for acquisition from own sources and a private equity investor.

Plans of the Company

Considering the revival of economy, the Company wants to expand by opening 10 more outlets by the end of March 2021 .And for this also it need borrowing which is available under various scheme announced by the Government of India. The Company has started the process of making financial analysis of the performance so that the Board is fully aware about the information being sent to the lenders.

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HC has a plan to open few outlets in UK to serve Indian customers. But before committing huge Capex it wants to make a proper financial viability analysis. The Board members also want this analysis to cover analysis with respect to parent in order to satisfy the shareholders of HC.

Actions taken by the Company

The Company has hired a consultant to review entire risk management practices of HC and suggest suitable and practical solution to make it cyber-resilient. The consultant has been specifically asked to cover sensitivity analysis, scenario analysis and use of Monte Carlo Analysis especially considering the high uncertainties in the external environment so that adequate steps are taken to mitigate the risks.

The Key remark of one of the Board member was : *"We believe that risk management decisions should be based on objective assessments of risk and be as evidence-based as possible. You should be able to estimate how various security measures and risk mitigation processes will affect your risk profile and to justify their implementation by how much they will reduce the risk of unacceptable loss."*

The Board has given general guidance with respect to risk tolerance and wants this should also be covered in the consultant's report. They are aware that some companies may tolerate the occasional minor loss from cyber-attacks. In fact, it may be too costly relative to the value to make an organization invulnerable and to prevent any cyber loss occurrence at all. But most companies want to avoid having a severe loss above a certain threshold, particularly one that will cause reputation damage, lead to missing earnings targets, materially damage the balance sheet, trigger a rating downgrade, or threaten the viability of the organization itself.

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Multiple Choice Questions

Choose the most appropriate answer from the answer options :

**2×5
= 10**

(5.1) HC has the following balance sheet (in INR millions) :

Bills Payables	100	Net PPE	1200
Accounts Payable	200	Inventories	300
Accruals	<u>100</u>	Accounts Receivables	400
Total Current Liabilities	400	Cash	<u>100</u>
Long -Term Debt	600	Total Current Assets	800
Equity	1000		
Total Liabilities and Equity	2000	Total Assets	2000

HC's Days Sales Outstanding (DSO) on a 365-day basis is 40, which is above the industry average of 30 ? Assume that HC is able to reduce its DSO to the industry average without reducing sales and the Company takes the freed-up cash and uses it to reduce its outstanding long-term bonds. If this occurs, what will be the new current ratio ?

- (A) 1.75
- (B) 1.33
- (C) 2.33
- (D) 1.25

(5.2) You have been asked to compare performance of HC with another Company Y. You have collected the following information :

- The two companies have the same total assets.
- HC has a higher total assets turnover than Company Y.
- HC has a higher profit margin than Company Y.
- Company Y has a higher inventory turnover ratio than HC.
- Company Y has a higher current ratio than HC.

Which of the following statements is the most correct ?

- (A) HC must have a higher net income.
- (B) HC must have a higher ROE.
- (C) Company Y must have a higher ROA.
- (D) Company Y must have higher profit margin.

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(5.3) Which of the following statements about risk analysis techniques is FALSE ?

- (A) In sensitivity analysis, the dependent variable is plotted on the y-axis and the independent variable on the x-axis. The steeper the slope on the resulting line the less sensitive the dependent variable is to changes in the independent variable.
- (B) Sensitivity analysis is incomplete, because it fails to consider the probability distributions of the independent variables.
- (C) In Monte Carlo simulation, probable future events are simulated on a computer generating estimated rates of return and risk indexes.
- (D) Scenario analysis is a risk analysis technique that considers both the sensitivity of the dependent variable to changes in the independent variables and the range of likely values of these variables.

(5.4) In the case of PC, at present the investment in working capital is 22% of sales. The Board of HC believes that it can be reduced that dramatically to 20% in the first year of ownership, 18% in the second year and then finally 15% in the third year. This level of 15% will then be the stable level of working capital investment for the business. What is the acquisition value of this working capital reduction if sales remain constant at INR100 million per annum and your cost of capital is 10% ? (rounded off)

- (A) INR 7 million
- (B) INR 5.8 million
- (C) INR 10.7 million
- (D) INR 8 million

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Marks

(5.5) Broad categories of malware include

- (A) 'Virus' - computer code inside a host program.
- (B) 'worm' - a stand-alone piece of compiled software as a program that can replicate itself.
- (C) 'Trojan horse' - a program that appears to do one thing but actually does something different.
- (D) All of the options

Descriptive Questions

- (5.6) What are risk capacity and risk exposure ? Explain the difference between risk exposure, risk tolerance and risk appetite ? 6

- (5.7) What are the two defining characteristics of cyber-resilient organization ?
What is reverse stress testing in case of a cyber-resilient organization ? 2

- (5.8) Discuss the difference between performing the capital budgeting analysis from the parent firm's perspective as opposed to the project perspective. 3

- (5.9) Discuss the four types of direct pay out cost if HC suffers from the cyber-attack. 4

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