

## School of Business

Bachelor of Business Administration  
Semester End Examination - Aug 2024

Duration : 180 Minutes  
Max Marks : 100

### Sem VI - D1UE601T - Advanced Technology in Banking

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Identify the common information assurance challenges faced by electronic banking systems, and how do banks address these challenges to maintain trust and confidence among customers? K3(6)

- 2) Situation: K3(9)

You are a cybersecurity expert working with a leading financial institution that specializes in offering Electronic Fund Transfer (EFT) services to its customers. The institution prides itself on providing secure and reliable payment solutions, but recent incidents of fraud and unauthorized transactions have raised concerns among both customers and stakeholders. The executive team has tasked you with conducting a comprehensive security assessment of the institution's EFT systems and implementing robust measures to mitigate the risks of fraud and unauthorized access.

Upon closer examination, you discover several vulnerabilities in the institution's EFT infrastructure, including outdated encryption protocols, weak authentication mechanisms, and insufficient monitoring of transaction activities. These vulnerabilities have made the institution susceptible to various types of fraud, such as phishing attacks, account takeover fraud, and unauthorized fund transfers.

In addition to addressing these immediate security gaps, you also need to develop a long-term strategy to enhance the overall security posture of the institution's EFT services, ensure compliance with industry regulations (such as PCI DSS and GDPR), and restore customer trust in the safety of electronic payments.

Question:

Given the situation described, how would you approach the task of implementing common security measures in Electronic Fund

Transfers (EFTs) to protect against fraud and unauthorized transactions within the financial institution? Furthermore, how would you develop a long-term security strategy that addresses vulnerabilities, complies with industry regulations, and restores customer confidence in the safety and reliability of EFT services?

- 3) List the security features of three popular digital wallet platforms, highlighting their effectiveness in protecting user data and transactions within the banking sector. K4(4)
- 4) You're a consultant advising a mid-sized regional bank that is considering implementing internet banking services to stay competitive in the market. How would you analyze the readiness of the bank's customer base for internet banking adoption? What strategies would you recommend to the bank to encourage adoption and ensure a smooth transition for its customers? K4(8)
- 5) Scenario: K4(8)  
You are the Chief Technology Officer (CTO) of a leading financial services company that recently upgraded its payment system infrastructure to meet the evolving requirements of modern banking. As part of this upgrade, your team implemented the INFINET Interface to enhance scalability and interoperability with various payment networks and platforms.  
However, with the rapid growth in digital transactions and the emergence of new payment technologies, stakeholders are increasingly concerned about the scalability and interoperability of the INFINET Interface.  
  
Question:  
Given the scenario, how would you examine and demonstrate the scalability and interoperability features of the INFINET Interface to assure stakeholders that it can effectively adapt to the evolving requirements of modern payment system infrastructures?
- 6) Situation: ABC Bank, a prominent financial institution, embarked on a comprehensive digital transformation journey aimed at modernizing its banking operations and enhancing customer experiences. As part of this initiative, the bank introduced a suite of cutting-edge technological solutions, including a new online K5(10)

banking platform, mobile banking app, and advanced data analytics tools. However, the transition to these new technologies presented several challenges that impacted various aspects of the bank's operations.

One of the key challenges faced by ABC Bank was the integration of its legacy systems with the new digital platforms. Despite extensive planning and testing, the integration process encountered unexpected complexities, resulting in compatibility issues, data inconsistencies, and system downtime. As a result, the bank experienced disruptions in transaction processing, delayed customer service responses, and reduced operational efficiency.

Furthermore, the rapid adoption of digital banking solutions led to a surge in cybersecurity threats, including phishing attacks, malware infections, and data breaches. ABC Bank's cybersecurity defenses were put to the test as cybercriminals targeted customer accounts, sensitive financial data, and internal systems. Despite implementing robust security measures, the bank struggled to stay ahead of evolving cyber threats, resulting in customer data compromises and reputational damage.

Moreover, the rollout of the new digital platforms highlighted the need for comprehensive customer education and support. Many customers, particularly those from older demographics or with limited digital literacy, faced challenges in navigating the new online banking interface, understanding app functionalities, and accessing customer support channels. This led to frustration, dissatisfaction, and increased demand for assistance from the bank's customer service representatives.

Additionally, ABC Bank encountered regulatory compliance risks associated with the adoption of new technologies. The evolving regulatory landscape, coupled with the complexity of digital banking operations, posed challenges in ensuring compliance with data privacy regulations, anti-money laundering (AML) laws, and customer authentication requirements. Non-compliance with regulatory standards could expose the bank to legal penalties, financial sanctions, and reputational harm.

In response to these challenges, ABC Bank implemented various strategies to address operational inefficiencies, enhance cybersecurity defenses, improve customer education, and ensure regulatory compliance. These strategies included investing in comprehensive training programs for employees and customers, enhancing cybersecurity protocols and threat detection systems, collaborating with regulatory authorities to stay abreast of regulatory changes, and leveraging advanced data analytics to proactively identify and mitigate risks. Question:

1. Given the challenges faced by ABC Bank during its digital

transformation journey, critically evaluate the effectiveness of the strategies implemented by the bank to address operational, cybersecurity, customer education, and regulatory compliance challenges.(5 marks)

2. Identify potential areas for improvement and propose innovative solutions that the bank could adopt to enhance its digital capabilities, mitigate risks, and deliver superior customer experiences in the rapidly evolving landscape of digital banking.(5 marks)

7) Situation: City Bank, a leading financial institution, is considering the implementation of smart card technology to enhance security and convenience for its customers. Smart cards, equipped with embedded microprocessors and encrypted data, offer advanced security features such as two-factor authentication and contactless payments. However, City Bank must carefully assess the potential benefits and challenges of integrating smart card technology into its banking services.

K5(10)

Question:

1. As City Bank evaluates the adoption of smart card technology in its banking operations, analyze the potential advantages and drawbacks of this implementation. (5 marks)

2. How might smart cards improve security measures, streamline transactions, and enhance customer experiences in banking? (5 marks)

8) Situation:

K5(15)

XYZ Fintech is an ambitious startup that has developed an innovative mobile payment app using blockchain technology. The app promises to revolutionize digital payments by offering secure, low-cost transactions with real-time settlement, leveraging the advantages of decentralized ledgers and cryptographic security. As XYZ Fintech prepares to launch its app in multiple markets, it faces a complex landscape of regulatory challenges that could significantly impact its success and growth trajectory.

XYZ Fintech's leadership team understands the critical importance of regulatory compliance in the financial services industry. They have appointed a regulatory compliance officer, tasked with navigating the intricate regulatory frameworks that can either facilitate or hinder the launch and expansion of the mobile payment app. The regulatory compliance officer's role is pivotal in ensuring that XYZ Fintech not only meets all legal requirements but also builds trust among users and stakeholders while fostering innovation and maintaining market stability.

Questions for the Regulatory Compliance Officer at XYZ Fintech:

1.How would you evaluate the current regulatory landscape in the markets where XYZ Fintech plans to launch its mobile payment app? What are the key regulatory factors that could either facilitate or hinder the app's entry into these markets?(8 marks)

2. Considering the importance of consumer protection, what specific regulatory compliance measures would you prioritize to

ensure that the app safeguards user data, prevents fraud, and provides transparency in transactions?(7 marks)

- 9) City Bank, a prominent financial institution deeply committed to meeting the evolving needs of its diverse customer base, recently embarked on a transformative journey by introducing a comprehensive phone banking system to complement its traditional in-person services. With a keen focus on enhancing customer convenience and accessibility, City Bank invested in state-of-the-art technology and extensive training for its customer service representatives. The implementation of phone banking aimed to streamline banking processes, provide personalized assistance, and ultimately elevate the overall banking experience for customers. As City Bank continues to innovate and adapt to the digital age, the introduction of phone banking stands as a testament to its unwavering dedication to customer satisfaction and excellence in service delivery.

K6(12)

Questions:

1.How does the introduction of phone banking align with City Bank's commitment to meeting customer needs?(4 marks)

2.How has the implementation of phone banking impacted customer satisfaction and engagement with City Bank?(4 marks)

3.In what ways does City Bank plan to further leverage phone banking technology to enhance its banking services in the future?(4 marks)

- 10) In a modern city bustling with technological innovations, there existed a mid-sized retail bank known for its customer-centric approach and seamless digital banking services. Let's call it MetroBank. With the rise of digital transactions and the increasing reliance on electronic fund transfers (EFTs), MetroBank had positioned itself as a leader in providing secure and efficient online banking solutions to its diverse clientele.

K6(18)

Among MetroBank's loyal customers was Mr. David Chen, a tech-savvy entrepreneur who ran a successful e-commerce business. David relied heavily on electronic fund transfers for his business operations, from paying suppliers to receiving payments from customers worldwide. The convenience and speed of EFTs had become integral to his business strategy.

One fateful day, as David was overseeing a major product launch for his e-commerce platform, he encountered an unexpected issue with an electronic fund transfer. A substantial payment from an overseas client had failed to go through, causing a delay in fulfilling orders and disrupting his carefully planned launch schedule.

Concerned and frustrated by the glitch, David contacted MetroBank's customer support for assistance. Meanwhile, the bank's IT team was already aware of an ongoing issue with their EFT system, which had experienced a temporary disruption due to a cyber attack targeting financial institutions in the region.

As David awaited resolution and clarity from MetroBank, several questions weighed on his mind:

1.Explain the specific technical issues that led to the disruption in electronic fund transfers at MetroBank, and how widespread was the impact on customers like David?(6 marks)

2.How will MetroBank communicate and address the concerns of customers affected by the EFT disruption, ensuring transparency and timely resolution of their financial transactions?(6 marks)

3.What measures can MetroBank implement to enhance the resilience and security of their EFT system, safeguarding against future cyber threats and minimizing disruptions for customers relying on digital transactions?(6 marks)