CONFIDENTIAL
95188036

UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL

FINAL EXAMINATION

MARCH 2026 SEMESTER

COURSE CODE	:	EHB20503
COURSE TITLE	:	DIGITAL BANKING AND FINANCE
PROGRAMME NAME	:	BACHELOR IN FINANCIAL TECHNOLOGY WITH HONOURS
DATE	:	25 JUNE 2026
TIME	:	2:00PM - 5:00PM
DURATION	:	3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. This question paper consist of ONE sections.
4. Section A consist of five questions. Answer FOUR (4) questions only.
5. Please write your answer on the answer booklet provided.
6. Please answer all questions in English only.
7. Refer to the attached Formula/ Appendies. ☐ *Tick if applicable*

THERE ARE 6 PAGES OF QUESTIONS INCLUDING THIS PAGE

SECTION A (Total: 100 marks)

Answer FOUR (4) questions.

Please use the answer booklet provided.

Question 1

Please answer the following question

(a) Explain the primary function of bank capital

(2 marks)

(b) Distinguish between "Regulatory Capital" and **"Economic Capital"**.

(4 marks)

(c) Based on the Basel III framework, calculate the Risk-Weighted Assets (RWA) and Capital Adequacy Ratio (CAR) for a bank with the following profile:
- Common Equity Tier 1 (CET1) Capital: $150 million
- Tier 2 Capital: $50 million
- Cash / Government Bonds: $200 million (Risk Weight: 0%)
- Residential Mortgages: $400 million (Risk Weight: 35%)
- Corporate Loans: $500 million (Risk Weight: 100%)
- Crypto Assets: $20 million (Risk Weight: 1250%)

Show your workings clearly.

(10 marks)

(d) Identify and briefly explain the **FOUR (4)** pillars of banking risk

(8 marks)

(e) State the Basel III minimum requirement for the total capital adequacy ratio.

(1 marks)

Question 2

Please answer the following questions

(a) Describe the core hardware and software components of a modern automated teller machine (ATM).

(8 marks)

(b) Discuss the strategic placement criteria for ATM network planning.

(3 marks)

(c) Explain the differences between on-site and off-site ATMs in terms of location and purpose.

(4 marks)

(d) Identify THREE (3) types of physical or logical attacks on ATMs and provide a corresponding risk mitigation strategy for each

(6 marks)

(e) Explain how Value-Added Services (VAS) transform ATMs from cost centers into revenue-generating channels.

(2 marks)

(f) Provide **TWO (2)** examples of VAS

(2 marks)

Question 3

Please answer the following questions

(a) Trace the evolution of internet banking from the 1980s to the current Open Banking era, highlighting **THREE (3) key** milestones.

(6 marks)

(b) Differentiate between the **THREE (3)** levels of internet banking (Informational, Communicative, and Transactional) in terms of functionality and risk exposure

(9 marks)

(c) Explain the **THREE (3)** differences between SMS Banking and USSD Banking as mobile banking channels

(6 marks)

(d) List **FOUR (4)** common services available through SMS banking

(4 marks)

Question 4

Please answer the following questions

(a) Define **"Branchless Banking"** .

(2 marks)

(b) State **THREE (3)** of branchless banking key characteristics

(3 marks)

(c) Discuss the concept of **"financial inclusion."**

(2 marks)

(d) Discuss **THREE (3)** dimensions of financial inclusion.

(6 marks)

(e) Using the M-Pesa (Kenya) case study, illustrate how branchless banking can drive rapid financial inclusion. Provide two specific examples of services offered by M-Pesa.

(8 marks)

(f) Identify **FOUR (4)** common challenges to implementing financial inclusion in developing nations

(4 marks)

Question 5

Please answer the following questions

(a) Alpha Swiss Bank, a long-established conventional bank with a large network of physical branches, is considering transitioning into a fully digital bank to remain competitive in the modern financial landscape. Compare and contrast digital banking and conventional banking across **FOUR (4)** key dimensions

i. operational structure

(5 marks)

ii. customer experience

(5 marks)

iii. cost efficiency

(5 marks)

iv. accessibility

(5 marks)

(b) Analyze how Alpha Swiss Bank's transition might negatively impact its traditional customer base by identifying and explaining **ONE (1)** specific operational or service-related challenge they would face.

(2 marks)

(c) Justify **ONE (1)** practical strategy that Alpha Swiss Bank could implement to mitigate customer disruption and facilitate a smooth transition, providing specific examples of how this strategy would address the identified challenge.

(3 marks)

END OF EXAMINATION PAPER