

FINAL EXAMINATION MARCH 2024

COURSE TITLE

FINANCIAL MARKETS AND STRUCTURES

COURSE CODE

RFIN3413

DATE/DAY

23 JUNE 2024 / SUNDAY

TIME/DURATION

05:00 PM - 07:00 PM / 02 Hour(s) 00 Minute(s)

INSTRUCTIONS TO CANDIDATES:

1. Please read the instruction under each section carefully.

2. Candidates are reminded not to bring into examination hall/room any form of written materials or electronic gadget except for stationery that is permitted by the invigilator.

3. Students who are caught breaching the Examination Rules and Regulation will be charged with an academic dishonesty and if found guilty of the offence, the maximum penalty is expulsion from the University.

(This Question Paper consists of 3 Printed Pages including front page)

This question paper consists of THREE (3) questions only. Answer ALL questions in the answer booklet provided. [60 MARKS]

QUESTION 1 (40 Marks)

XYZ Bank, renowned for its retail banking, investment banking, and wealth management services, has recently embraced big data analytics to fuel its digital transformation efforts. The primary objectives driving this initiative are to enhance operational efficiency, elevate the customer experience, and effectively manage risks. However, amidst the competitive financial landscape, the XYZ Bank has encountered significant challenges.

Firstly, managing the vast daily data generated from customer transactions, market insights, social media interactions, and internal operations has proven to be a formidable task. Secondly, the diversity of data sources, ranging from structured data like transaction records and customer profiles to unstructured data such as emails and social media posts, has posed integration and insights derivation challenges.

Additionally, the critical need for rapid data processing (data velocity) to enable real-time decision-making in response to market shifts, customer queries, and regulatory requirements has been a focal point. Finally, ensuring data accuracy, completeness, and reliability (data quality) has emerged as a paramount concern, crucial for informed decision-making and regulatory compliance.

a) Describe the evolution of Big Data.

(6 marks)

- b) The utilization of Big Data within the financial sector has experienced substantial growth in recent years, driven by the desire of financial institutions to leverage data for strategic insights and competitive advantages. Outline FOUR (4) common applications of Big Data within financial institutions.

 (8 marks)
- Analyse THREE (3) business benefits derived from the implementation of Big Data strategies for XYZ Bank.
 (9 marks)
- d) In light of the case study, analyse the challenges XYZ Bank faces in adopting Big Data strategies within its operations. (8 marks)
- e) Propose THREE (3) comprehensive Big Data strategies aimed at mitigating the challenges encountered by XYZ Bank and enhancing its operational efficiency. (9 marks)

QUESTION 2 (10 Marks)

A cryptocurrency represents a digital asset that operates on a decentralized network spanning numerous computers. This distributed architecture enables its independent existence beyond governmental and central regulatory oversight.

Outline FIVE (5) benefits and drawbacks of cryptocurrency.

QUESTION 3 (10 Marks)

The Bitcoin protocol is founded upon a blockchain. Satoshi Nakamoto, the anonymous inventor of Bitcoin, described it in a research paper as a "new electronic cash system that operates on a fully peer-to-peer basis, without the need for a trusted intermediary." The fundamental concept is that Bitcoin leverages blockchain technology to securely document a ledger of transactions, ensuring transparency between participating parties.

Distinguish between the utilization practice of Bitcoin and traditional banking practices.

*** END OF QUESTION PAPER ***

