



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCE

**DEPARTMENT OF INFORMATICS AND
ANALYTICS**

**Electronic Commerce
(SIIS 5103)**

Main Examination Paper

First Semester 2024

This Examination Paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: N/A

Internal Examiner: **Prof V Maphosa**

External Examiner: Dr. LC Sakala

INSTRUCTIONS

1. Answer ANY FOUR questions.
2. Each question carries 25 marks

MARK ALLOCATION

QUESTION	MARKS
1	25
2	25
3	25
4	25
5	25
TOTAL POSSIBLE MARKS	100

Question 1

Walmart's WMT revenue was up 6.7% for the fiscal year 2020, reaching \$559 billion, keeping it is the top ranking and the largest U.S. retailer, followed by Amazon AMZN, which reported revenue of \$386 billion for its fiscal year. Walmart's rise to prominence is due in no small part to its use of information systems. One of the keys to this success was implementing Retail Link, a supply-chain management system. This system, unique when initially implemented in the mid-1980s, allowed Walmart's suppliers to directly access their products' inventory levels and sales information at any of Walmart's more than ten thousand stores. Using Retail Link, suppliers can analyse how well their products are selling at one or more Walmart stores, with a range of reporting options. Further, Walmart requires the suppliers to use Retail Link to manage their own inventory levels. If a supplier feels that their products are selling out too quickly, they can use Retail Link to petition Walmart to raise inventory levels for their products. This has essentially allowed Walmart to "hire" thousands of product managers, all of whom have a vested interest in managing the products. This revolutionary approach to managing inventory has allowed Walmart to continue to drive prices down and respond to market forces quickly. Today, Walmart continues to innovate with information technology. Using its tremendous market presence, any technology that Walmart requires its suppliers to implement immediately becomes a business-standard.

Source: Walmart Revenue Hits \$559 Billion For Fiscal Year 2020 (forbes.com)

- a) Discuss how Walmart used information systems planning to achieve global dominance [13]
- b) Give reasons why some big companies fail to utilise information systems for competitive advantage. [12]

Question 2

Some commentators assert that e-commerce companies should not be considered a separate category of companies. Do you think that e-commerce companies are fundamentally different from traditional companies? Using examples and referencing economic frameworks, provide a reasoned argument that includes points for and against the proposition. [25]

Question 3

- (a) Discuss the challenges of implementing electronic currencies. [5]
- (b) Discuss whether Bitcoin is better described as a currency, a bearer certificate or something else and what tests you would apply in making this determination. [10]
- (c) Are fully anonymous online markets desirable? Justify your answer. [10]

Question 4

- (a) Discuss how you would use social media to attract traffic to your website. [5]
- (b) Discuss the difficulties in measuring the use of your website and related social media campaign. [10]
- (c) Discuss whether the use of third-party analytics creates opportunities to leak personal information. [10]

Question 5

- a) Explain what is meant by the “Freemium model” for online services. [5]
- (b) Explain the business model for social networks. [5]
- (c) Discuss strategies that can be used by newspapers to survive in a digital age. [15]

Question 6

- (a) Describe possible business models for the NUST FM a small community radio station. Estimate start-up costs and revenue models, and describe some of the challenges such a small community radio station will need to overcome. [10]
- (b) What are the security issues to be taken into account while designing a security system for e-commerce? Explain. [15]

END OF QUESTION PAPER

