



STRATHMORE UNIVERSITY BUSINESS SCHOOL
BACHELOR OF COMMERCE
END OF SEMESTER EXAMINATION

BCA 4201 ACCOUNTING AND FINANCIAL INFORMATION SYSTEMS

DATE: 7th December 2023

Time: 15:30-17:30

Instructions

1. This examination consists of **FIVE** questions.
2. The Total Marks for this exam is **70**.
3. Answer **Question ONE (COMPULSORY)** in section A.
4. Answer **ANY TWO** Question from **Section B**.

SECTION A:(COMPULSORY)

QUESTION ONE

(30 Marks)

- (a) Bamburi cement ltd is a cement manufacturing company that has been operating in Kenya for more than ten years. The supply chain of Bamburi includes the suppliers and customers. Effective management of the supply chain relationships is a critical factor in ensuring increased profits by Bamburi.

Required;

Explain three ways that adoption of a modern Enterprise resource planning software such as QuickBooks or Microsoft Navision would enable Bamburi to improve the supply chain relationships with the suppliers and customers. **(3 marks)**

- (b) The Accounting & Financial information system is made up of various components. Explain two components of the Accounting & Financial Information system. **(2 marks)**
- (c) Blockchain technology has been gaining traction over the last few years with more businesses embracing usage of the technology. Jumia ltd one of the largest online retail business in Kenya has been considering using this technology.

Required;

Explain two ways that blockchain technology may be used by Jumia ltd within its revenue transaction cycle. **(2 marks)**

- (d) One of the major processes within the Human resource management/payroll cycle entails preparation of the payroll. Explain how the net pay would be computed for an employee who is permanently employed by Naivas Supermarket assuming the employee works in one of the supermarket branches in Kenya. **(6 marks)**

- (e) DHL Ltd is one of the largest global logistics and shipping companies. Explain one internal control procedure that would provide protection against the following threats.
- i) Workers on the shipping dock steal goods, claiming that the inventory shortages reflect errors in the inventory records. **(2 marks)**
 - ii) An employee posts the sales amount to the wrong customer account because he incorrectly keys in the customer account number into the system. **(2 marks)**
 - iii) One of the employees working in the IT Department as a programmer hacked into the payroll master file and increased his salary. **(2 marks)**
- (f) The production transaction cycle is an important sub-system within the Accounting Information system. Coca-Cola Ltd is the largest beverage manufacturer in the world that produces and supplies various beverage products globally.
- Required;**
Identify four major processes that are found within the production transaction cycle for Coca-Cola Ltd and prepare a Data Flow Diagram representing the processes. **(8 marks)**
- (g) Explain two Computer-Assisted Audit Techniques (CAATs) that can be used when carrying out audit of Accounting Information Systems. **(3 marks)**

SECTION B:

(Answer any TWO Questions From this section)

QUESTION TWO

(20 MARKS)

- (a) Audit of Accounting information systems is an important control procedure which should be carried out on a regular basis. The management of Safaricom Ltd has just engaged an audit company that you own to carry out a complete audit of its Accounting & Financial information systems.
- Required;**
Explain in detail how you would carry out an audit of the Accounting & Financial information systems of Safaricom Ltd highlighting all the major steps involved in the audit. **(6 marks)**
- (b) One of the major processes within the general ledger and reporting transaction cycle within the Accounting & Financial information systems entails preparation of various management reports.
- Required;**
Explain any three managerial reports that will be useful to managers of Coca-Cola beverage Ltd in various decisions. **(3 marks)**
- (c) Quickmatt Supermarket has been operating in Kenya for the last two years. The supermarket has been facing increasing competition from other supermarkets in Kenya. The management of the company has been evaluating various strategies that can be used to increase the profitability of the company. The supermarket has only been selling its products through its physical stores with the company considering introduction of an online platform to attract more customers. After an intense analysis, the management of the supermarket has decided

to create an online retail platform to access more customers, and this is expected to boost the level of profitability. The management of Quickmatt Supermarket has decided to engage you as an IT expert to facilitate implementation of the online retail platform within the revenue cycle.

Required;

- i) Prepare a Data Flow Diagram (DFD) indicating all the major processes that will be found within the revised revenue cycle that Quickmatt Supermarket intends to use having both physical stores sales and online platform sales. **(8 marks)**
- ii) One of the main threats faced by online retail stores is the delivery of the wrong products to customers. Explain three internal control procedures that can be adopted by Quickmatt Supermarket to mitigate against this threat within the online retail store that the company plans to launch. **(3 marks)**

QUESTION THREE

(20 MARKS)

- (a) Unilever Ltd is a company that manufactures and sells various consumer products in Kenya. The Company performs its expenditure cycle activities using its integrated ERP system as follows:

Employees in any department can prepare purchase requisitions for items they note as being either out of stock or in small quantity. Each day, employees in the purchasing department process all purchase requests from the prior day. To the extent possible, requests for items available from the same supplier are combined into one larger purchase order in order to obtain volume discounts.

Purchasing agents use the Internet to compare prices in order to select suppliers. If an Internet search discovers a potential new supplier, the purchasing agent enters the relevant information in the system, thereby adding the supplier to the approved supplier list. Purchase orders above 10,000,000 must be approved by the purchasing department manager. Paper purchase orders are printed and mailed to suppliers.

Receiving department employees have read-only access to outstanding purchase orders. Usually, they check the system to verify existence of a purchase order prior to accepting delivery, but sometimes during rush periods they unload trucks and place the items in a corner of the warehouse where they sit until there is time to use the system to retrieve the relevant purchase order. In such cases, if no purchase order is found, the receiving employee contacts the supplier to arrange for the goods to be returned.

Receiving department employees compare the quantity delivered to the quantity indicated on the purchase order. Whenever a discrepancy is greater than 5%, the receiving employee sends an email to the purchasing department manager. The receiving employee uses an online terminal to enter the quantity received before moving the material to the inventory stores department.

Inventory is stored in a locked room. During normal business hours an inventory employee allows any employee wearing an identification badge to enter the storeroom and remove

needed items. The inventory storeroom employee counts the quantity removed and enters that information in an online terminal located in the storeroom.

All supplier invoices are routed to accounts payable section for review and approval. The system is configured to perform an automatic 3- way match of the supplier invoice with the corresponding purchase order and receiving report.

Each Friday, approved supplier invoices that are due within the next week are routed to the treasurer's department for payment. The cashier and treasurer are the only employees authorized to disburse funds, either by EFT or by printing a check. Checks are printed on dedicated printer located in the treasurer's department, using special stock paper that is stored in a locked cabinet accessible only to the treasurer and cashier. The paper checks are sent to accounts payable to be mailed to suppliers.

Monthly, the treasurer reconciles the bank statements and investigates any discrepancies with recorded cash balances.

Required;

- i) Explain three weaknesses identified within Unilever Ltd expenditure cycle based on the above information. **(3 marks)**
- ii) Prepare a revised Data Flow Diagram (DFD) for Unilever Ltd expenditure cycle that the company should adopt to address the weaknesses identified in (ii) above. The Data Flow Diagram should be as detailed as possible and include all the processes involved the expenditure cycle of the company. **(8 marks)**

(b) Bidco East Africa Ltd is a company that has been operating in East Africa for the last five years. The company manufactures various consumer products ranging from cooking oil, detergents, juices and many other products. The company has been using an old accounting software and the management has decided to upgrade to the latest version of QuickBooks Desktop 2023 which is an enterprise resource planning software.

The management of Bidco has decided to hire you to facilitate the migration to the new QuickBooks Desktop 2023 ERP software. To facilitate this the company has provided you with the following adjusted trial balance for the last year ended 31st December 2022.

BIDCO East Africa Ltd		
Adjusted Trial Balance		
For the Year Ending December 31, 2022		
Accounts	Debit	Credit
	Kshs (000)	Kshs (000)
Bank	42,225	
Accounts receivable	58,125	
Prepaid Insurance	1,650	

Building and equipment	1,575	
Accounts payable		15,765
Notes payable		1,500
Capital stock, as at 1/01/ 2022		11,250
Retained earnings, as at 1/01/ 2022		33,510
Sales		189,750
Dividends	1,500	
Wages expense	126,150	
Rent expense	8,250	
Advertising Expense	5,850	
Fuel Expense	4,125	
Miscellaneous Expense	2,325	
	<u>251,775</u>	<u>251,775</u>

Required.

- i) Using the above adjusted trial balance Cross-off the books for the financial year ending at 31st December 2022 for Bidco East Africa ltd. Provide appropriate journal entries that will be created to Cross-off the books **(4 marks)**
- ii) Provide the trial balance after closing off the books of Bidco ltd after implementing the closing of the year procedures as per (i) above. **(2 marks)**
- iii) Explain three ways that Bidco ltd will benefit from the implementation of the new QuickBooks Desktop 2023 ERP software. **(3 marks)**

QUESTION FOUR

(20 MARKS)

- (a) Explain the difference between the traditional flat file system and the database file system that is used in the design of Enterprise Resource Planning (ERP) software's. **(3 marks)**
- (b) The development of any system that will be used in managing any Accounting Information system transaction cycle should follow various phases as defined by the System Development Life Cycle (SDLC) Phases.

Required;

Explain the six System Development Life Cycle (SDLC) Phases that will be involved in the development of a new system that will be used to manage the Human Resource/Payroll Transaction cycle for Bamburi cement ltd. **(6 marks)**

- (c) More and more businesses are adopting the use of Customer Relationship Management (CRM) software's within the Accounting information Systems.

Required;

- i) Explain two benefits that a business enjoys by using Customer Relationship Management (CRM) software's. **(2 marks)**

(d) The databases that an enterprise uses can be structured in different ways. REA (Resources - Events-Agents) model is one of the most common models.

Required;

Explain how the REA database model can be used to design a database using the Expenditure transaction cycle as the reference transaction cycle. **(3 marks)**

(e) The relational database model is the preferred database design model in the design of most accounting software's. The accounts receivables accountant of Kakuzi Agri Ltd has provided you the following five tables in relation to the revenue transaction cycle.

CUSTOMER Table					
Cust Num	Name	Address	Tel Num	Credit Limit	Billing Date
23456	Smith	125 Elm St., City	610-555-1234	\$5,000	12

INVOICE Table					
Invoice Num	Invoice Date	Ship Date	Terms	Carrier	Cust Num
98765	9/01/09	9/03/09	Net 30	UPS	23456

LINE ITEM Table		
Product Num	Invoice Num	Quant Sold
X21	98765	5
Y33	98765	10

PRODUCT Table						
Product Num	Description		Sale Price	Unit Cost	QOH	Reorder Point
X21	Something or other		\$30	\$22	200	50
Y33	Something else		\$20	\$16	159	60

CASH RECEIPT Table					
Trans Num	Cust Num	Check Num	Amount	Check Date	Date Posted
77654	23456	451	\$200	9/28/09	9/30/09

Required;

- i) Explain how you would design a database for the above company's revenue cycle using the relational database model explaining the primary key and foreign key that will be used in each of the five tables using Microsoft access. **(6 marks)**

QUESTION FIVE

(20 MARKS)

- (a) The COSO framework proposes that the process of designing Accounting Information Systems internal control framework should focus on five components important components.

Required;

Explain the five components that would be involved in the process of designing the Accounting Information Systems internal control framework for Equity Bank Ltd using the COSO Internal Control Framework **(5 Marks)**

- (b) Explain the following technologies can be used within accounting information systems.
- i) Point-of-Sale (POS) Systems. **(2 marks)**
 - ii) Cloud Computing. **(2 marks)**
 - iii) Extensible Business Reporting Language (XBRL). **(3 marks)**
- (c) Input manipulation, programme alteration, file alteration, data theft have been identified as types of fraud in a computerized environment.
- i) Explain how each of the four types of fraud is committed **(4 marks)**
 - ii) Explain the internal control procedure that would be adopted to mitigate against each of the above four types of fraud. **(4 marks)**