



STRATHMORE BUSINESS SCHOOL
BACHELOR OF COMMERCE
SPECIAL EXAMINATION

BCA 4201: ACCOUNTING AND FINANCIAL INFORMATION SYSTEMS

DATE: Fri, 26th April 2024

TIME: 10:30 – 12:30

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **Question ONE (COMPULSORY)** and any other **TWO** questions.
3. Do not write on the question paper.

QUESTION ONE

(30 MARKS)

- a) Give an example of how an AIS can improve decision making and describe the multistep activities involved in the process. (8 marks)
- b) The following data elements comprise the conceptual-level schema for a database:
 - cost
 - product code
 - product description
 - product cost
 - quantity on hand
 - minimum stock level
 - quantity purchased.
 - invoice number.
 - supplier code
 - supplier name
 - supplier terms

Required

Identify three potential users and design a subschema for each. Justify your design by explaining why each user needs access to the subschema data elements. (8 marks)

- c) At the Barsus steel factory, employees have to enter their working hours on data input terminals and the job code for each project they work on. They enter the starting time and the time they stop working on each project. The international head office of Barsus receives the job-time data electronically every day. Not all the divisions of Barsus are equipped with the

electronic system; some of them still work with paper job-time tickets. These tickets are mailed weekly and scanned at the head office, where the data is stored digitally. The payroll database is updated weekly based on the job-time tickets. All employees are paid electronically and therefore no checks are printed. Instead, the payroll system deposits an employee's net pay in the employee's bank account. Payments are made to government tax bodies. All disbursements are accompanied by a report summarizing the disbursement. The system also produces pay stub data that is stored in a payroll transaction file that is accessible to employees over the internet. An electronic summary payroll report is created and sent to the payroll supervisor.

Required;

Prepare a BPD for the Barsus steel factory payroll processing. **(8 marks)**

- d) Identify which data processing method (batch or real-time) would be required for the following scenarios: **(6 marks)**
- i. Prepare weekly payroll checks
 - ii. Purchase goods from an online (e-commerce) store
 - iii. Prepare daily bank deposits
 - iv. Prepare municipality bills for water and electricity
 - v. Make a cash withdrawal at an ATM f. Purchase bus tickets online
 - vi. Purchase bus tickets online – Online, real-time

QUESTION TWO (15 MARKS)

- a) Companies are automating many accounting tasks. Is automation good or bad?
- i. Consider this question from the view of accounting students, accounting practitioners, other business professionals, and society as a whole. **(5 marks)**
 - ii. What should be done to achieve the good aspects of automating accounting tasks while minimizing the poor aspects? **(4 marks)**
- b) For each of the following examples, indicate whether the data is structured, semistructured, unstructured, or a mix of each. Explain your answer
- a. A company runs many social media campaigns to increase sales. The company collects data about the amount spent on each ad campaign, the number of people who click on each ad, whether each person clicking on an ad completed a purchase, and the location (city and country) of each person who clicked on an ad. **(2 marks)**
 - b. A company performs performance evaluations of all its employees each quarter. The evaluations include comments made by peers of each employee, a supervisor's writeup of performance during the quarter with a rating on a 5-point scale, and performance metrics relative to their job title (e.g., sales completed for sales people, units repaired for repair people, etc.) **(2 marks)**
 - c. A non-profit organization keeps a record of all past donors. The organization tracks names, dates of donations, amount donated, and additional comments about the donor and their donation **(2 marks)**

QUESTION THREE**(15 MARKS)**

- a) Why is transforming data necessary and why does it take so much time? What ways can you think of to reduce the time needed to transform data? **(5 marks)**
- b) For each of the data quality attributes listed in Table 6-1 below, discuss a business scenario that would be harmed if data did not have the data attribute. As you prepare these scenarios, are there other attributes of data that should be added to Table 6-1? If so, why? **(10 marks)**

TABLE 6-1 Attributes of High-Quality Data

Attribute	Definition
Accurate	Correct; free of error; accurately represents events and activities
Complete	Does not omit aspects of events or activities; of enough breadth and depth
Consistent	Presented in same format over time
Timely	Provided in time for decision makers to make decisions
Valid	Data measures what it is intended to measure; conforms to syntax rules and to requirements

Required;

Attribute	Problematic Business Scenario
Accurate	
Complete	
Consistent	
Timely	
Valid	

QUESTION FOUR**(15 MARKS)**

- a) In what circumstances is data visualization better than using text explanations and tables of numeric data? In what situations is it worse? Justify your reasoning. **(9 marks)**
- b) Write short notes on the following terms, clearly show their different?
- i. alternative hypothesis **(2 marks)**
 - ii. categorical data **(2 marks)**
 - iii. classification analyses **(2 marks)**

QUESTION FIVE**(15 MARKS)**

- a) Do you agree that high penalty, such as reducing salaries or retirement benefits, is the most effective way to reduce employee fraud because the cost of dishonesty is excessive? **(5 marks)**
- b) Discuss the following statement by Roswell Steffen, a convicted embezzler: “For every foolproof system, there is a method for beating it.” Do you believe a completely secure computer system is possible? Explain. If internal controls are less than 100% effective, why should they be employed at all? **(10 marks)**