

PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BSIT 201/BIT 201

CAMPUS: ROYSAMBU

COURSE TITLE: SYSTEM ANALYSIS AND DESIGN

EXAM DATE: FRIDAY, DATE (APRIL 2025)

TIME: START HOUR – END 8:00-10:00 HRS

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other THREE questions in Section **B**.
- Write only your **student number** on the answer booklet provided.

SECTION A **(Answer ALL questions in this section)**

QUESTION 1

A SYSTEM FOR MANAGING PAC UNIVERSITY

The system will be used in PAC University to administer student registration and admission details. A module will manage tuition fee payments and financial records, and another module will monitor the university's inventory, including books, laboratory equipment, and classroom resources. The university has decided to develop a university management system to enhance information management and improve efficiency for university administrators and staff.

Using your knowledge of Analysis and Design of Information Systems, answer the following questions:

Questions:

a) Suppose you are the Systems Analyst on this project, give **TWO** reasons it would be necessary to undertake a feasibility analysis **[2**

Marks]

b) Describe **TWO** key people at the university relevant to be respondents during analysis **[2 Marks]**

c) Identify **FOUR** functional requirements you would consider for the university management system. **[4 Marks]**

d) Briefly describe **TWO** categories of testing that could be used for the university management system. **[2 Marks]**

SECTION B : (Answer any THREE (3) questions in this section)

QUESTION 2

Victoria is an IT administrator at a mid-sized company that recently introduced a new cloud-based file management system to improve collaboration. However, many employees are reluctant to use the new system, preferring the old manual file-sharing methods. Analyze the **FOUR** reasons behind this resistance to change **[4**

Marks]

James has been tasked with overseeing the development of a new customer support system for your company. The development team suggests using prototyping to gather user feedback and refine the system. Explain **THREE** potential drawbacks of this approach in system development. [6

Marks]

Question 3:

- a) Jane is overseeing the transition from an old inventory management system to a new, more efficient one in your company. To ensure a smooth changeover, she needs to decide on the most suitable implementation method. Discuss the **FOUR** changeover methods she can adopt [4

Marks]

- b) As a project manager leading a team on a system development project, you've been asked to analyze the common reasons why many system projects fail and propose strategies to mitigate these risks. Explain **THREE** key factors that contribute to project failure [6 Marks]

Question 4:

- a) A startup company is planning to develop a mobile application for managing personal finances and needs to assess its technical feasibility. Describe **THREE** ways you would conduct this assessment to determine the project's viability [6

Marks]

- b) As a software developer working on a project for a healthcare organization, you're tasked with designing a system to manage patient records and medical information. Describe **FOUR** ethical considerations you need to take into account during the development process and explain how they might influence your decision-making.

[4 Marks]

Question 5:

a) As a systems analyst, you're involved in managing the maintenance of a large-scale enterprise resource planning (ERP) system. Explain **THREE** advantages of performing preventive maintenance activities you would need to consider for this system. **[6 Marks]**

b) Natasha has been training new employees on system documentation techniques. To help them understand process visualization, she introduced the concept of flowcharts. Describe the **TWO** types of flowchart she can use to visualize. **[4 Marks]**

Question 6:

a) As a software project manager, you're considering the implementation of CASE tools to streamline the development process for your team.

i. Explore **TWO** advantages of using CASE tools in software development

[2 Marks]

ii. Explain how they might impact your project. **[2 Marks]**

b) As a systems analyst, you've been tasked with developing the conceptual design for a new online learning management system (LMS) for a university. Describe **THREE** key components of logical design in system analysis and design and explain how you would apply them in the development of LMS. **[6 Marks]**

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