

CONTINIOUS ASSESSMENT QUESTIONS

1st SEMESTER 2024/2025

**DATE:** MAY 2025

**CS403 SOFTWARE ENGINEERING PRACTICE**

LECTURER NAME: GEORGE AFIRIYIE GYAMFI

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTIONS

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**MINICASE-1**

**Accra Institute of Technology (AIT) Information System Development**

AIT is a small private institution located in the city of Accra, As AIT continues to grow and adapt to the evolving educational landscape, the need for a robust, efficient, and user-friendly information system has become increasingly evident. The envisioned system aims to streamline various administrative operations, enhance data accuracy, and improve the overall experience for both staff and students. AIT has retained the services of you as a systems analyst to assist in the development of a new information system for its administrative needs

**Background**  
  
After completing your preliminary investigation, you meet with Lydia Gyamfi, AIT’s director, to review the requirements documents. You discuss the necessary system components, which include modules for student registration, drop-in reports, billing, payment recording, receipt generation, and monthly reports. The next step is developing a logical model for the billing system, using data flow diagrams (DFDs) to illustrate data movement and transformation into valuable information.  
  
**Questions**

1. Create a context diagram for the new system.
2. Develop a diagram 0 DFD for the new system.
3. List required data stores and data flows required, including their data elements.
4. Draft a memo explaining the importance of leveling and balancing DFDs, ensuring formal heading and formatting.

**Total [15 Marks]**