CENTRAL UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Course Code: COMP203 **Credit Hour(s)**:**3** **Course Title**: System Analysis and Design

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Mid-Semester Exams 2021

Answer All Questions (80 marks and the group work is 20marks)

1. Being the System Analyst for your Group, you are to design a Database System for the Group. (use the following sub-questions below to apply your skills as a system analyst in creating the system). Written in word, not in the access database. **30marks**
    a. Give your database system a name and state five (5) entities for your database.
    b. Each table should have at least 5 attributes
    c. Enter 10 records into each entity.
    d. Explain why it is important to design a database.

2. a. Briefly explain the SDLC phases / Stages in designing a new system.
    b. complete the following table

Process	**Product**
Planning	
Analysis	
Design	
Implementation	

    10marks

3. a. With an aid of a diagram, explain the Data Flow Diagram components
    b. The element of the Use Case Diagram (give 5 use case diagram examples)

    20marks

4. Conversion is a process of migrating from the old system to the new one. It provides an understandable and structured approach to improve the communication between management and the project team. Use the information below to descript the four major conversion methods, their advantages, and their disadvantages. **20marks**

    a. **Description**:
        i. New system is implemented and old system is replaced completely.
        ii. Working version of system implemented in one part of organization based on feedback, it is installed throughout the organization all alone or stage by stage.
        iii. Old and new systems are used simultaneously.
        iv. Supports phased approach that gradually implement system across all users

    b. Advantages

i. Provides experience and line test before implementation, when preferred new system involves new technology or drastic changes in performance.
ii. Provides fallback when new system fails. Offers greatest security and ultimately testing of new system.
iii. Forces users to make new system work, immediate benefit from new methods and control.
iv. Allows training and installation without unnecessary use of resources. Avoid large contingencies from risk management.

c. Disadvantages

i. Causes cost overruns. New system may not get fair trial.
ii. A long-term phase-in causes a problem of whether conversion goes well or not.
iii. Gives impression that old system is erroneous and it is not reliable.
iv. No fall back if problems arise with new system. Requires most careful planning

Method	Description	Advantages	Disadvantages
Parallel Conversion			
Direct Conversion			
Pilot Approach			
Phase-In Method			

Instructions

The Mid Semester exam is to be submitted on Tuesday 31st January 2023 at exactly 12 pm and it should be handed in person at my office.
I will like to see you personally to take your work else it won't be accepted and be sure to sign my attendance before leaving. I will be leaving after 12 so be there before or exactly 12 pm

Only hard copies and individual work will be accepted.

Good luck.