



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA**  
**FACULTY OF COMPUTING**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2024\_2 EXAMINATION**

**COURSE CODE:** CIT 844  
**COURSE TITLE:** ADVANCED DATABASEMANAGEMENT SYSTEM  
**CREDIT UNIT:** 3  
**TIME ALLOWED :** 3HRS  
**INSTRUCTION:** ANSWER QUESTION ONE AND ANY FOUR OTHERS

1. With the aid of the diagram, discuss Life Cycle of a Database with detail explanatory of any of the 3 phases
  
- 2a. List 3 features of Logical Data Model.
- 2b. List 3 different methods of backup in a database and explain any 2
  
3. Each transaction has ACID property. If we fail to maintain the ACID properties, it is the failure of the database system. Explain the following properties; (i) System Crash (ii) Transaction Failure (iii) Network Failure (iv) Disk Failure (v) Media Failure (vi) User Error
  
- 4a. Hardware protection is divided into 3 categories: List them
- 4b. Explain 2 out of the 3 categories in (4a)
  
- 5a. What is a database system catalogue?
- 5b. What is a Data Warehouse?
- 5c. List four (4) characteristics of Data Warehouse
  
6. List 5 features of Database Management Systems (DBMS) and explain any 3.