



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
COMPUTER SCIENCE DEPARTMENT
2020_1 EXAMINATIONS

DAM 461: STATISTICAL DATABASE SYSTEM

Credit: 3 units

TIME ALLOWED: 2½ Hours

INSTRUCTION: Answer Question 1 and any other FOUR (4) Questions

- 1a. Enumerate the phases of database design and identify which of the phases are DBMS-independent
- 1b. What is the distinction between database schema and database instance?
- 1c. Explain the two types of Data Manipulation Language
- 1d. Identify any five functions of database system utilities **(22 marks)**

- 2a. Illustrate the three-schema architecture using a well labelled diagram
- 2b. What is data independence?
- 2c. List and explain the two types of Data Manipulation Language **(12 marks)**

- 3a. Database Management System is an important component of the database environment. List the other components of the database environment and identify which of them constitute database's central component.
- 3b. What is the main purpose of database environment?
- 3c. Identify any five functions of database system utilities
- 3d. Outline any four characteristics of client systems **(12 marks)**

- 4a. Which of the database design phase can be used to communicate with non-technical users and why?
- 4b. Outline when does the three types of data disclosure occurs. **(12 marks)**

- 5a. Briefly highlight five possible set of operations available on SUBJECT model
- 5b. What is the access control objective for Statistical Database system?
- 5c. What are the two distinct approaches to protection of SDB from inference attacks? **(12 marks)**

- 6a. What are the conditions for the positivity and negativity of a compromise?
- 6b. Identify three problems associated with query set over control
- 6c. Outline the rules for partitioning the database
- 6d. Outline the implication of using database approach in an organization. **(12 marks)**