NATIONAL OPEN UNVERSITY OF NIGERIA

Plot91, University Village Cadastral Zone, Nnamdi Azikiwe Express Way,Jabi-Abuja.

FACULTY OF SCIENCE AND TECHNOLOGY

Course Title: DAM461 – Statistical Database System.   **Time:** 3hrs

Instruction: *Answer question one and any other three questions*   **Credit Unit:** 3

Question One

Q1a). Define the following concepts:

i)	Data	(1mark)
ii)	Database	(1mark)
iii)	Database Management System	(1mark)
iv)	Database model	(1mark)
v)	Data independence	(1mark)

Q1b). State Database System Utilities   (7marks)

Q1c) What are the characteristics of Client systems?   (5marks)

Q1d). Explain database environment and its components   (8marks)

Question Two

Q2a). Enumerate the Categories of Data Model   (6marks)

Q2b). In the context of E-R model, define the following terms:

vi)	Relationship	(2marks)
vii)	Connectivity	(2marks)
viii)	Cardinality	(2marks)

Q2c). Explain the use of High-Level Conceptual Data Models for Database Design

(3marks)

Question Three

Q3a). Define Statistical database system and mention the term statistical database

is used in two contexts: (5marks)

Q3b) State the operations needed to create, update and explore the metadata

(5marks)

Q3c) What are the rules for partitioning the database   (5marks)

Question Four

Q4a) With an example extract statistics using SQL   (8mrks)

Q4b Explain the concept of Decision Tree?   (2marks)

Q4c) State five (5) basic Decision Tree Building blocks   (5marks)

Question Five

Q5a) Briefly discuss the concept of Correlation?   (3marks)

Q5b) In Statistical databases, the common approaches use a combination of aggregate queries to derive information about a single individual are expressed as: (7marks)

Q5c) What are the Techniques in Output Perturbation?   (5marks)

Question Six

Q6a) Define the following fundamental concepts:

   i)   query restriction   (2marks)

   ii)   Perturbation   (2marks)

Q6b Identity the queries of a Statistical Database.   (7marks)

Q6c) Write short note on Partitioning   (4marks)