



NATIONAL OPEN UNIVERSITY OF NIGERIA

University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja
Faculty of Sciences

July 2017

Course Title: Advanced Database Management System

Course Code: CIT 844 – (2 Credits)

Answer Question 1 and any other three questions in 2¹/₂ Hours.

1. (a) Describe a tuple and attribute. Create Six (6) students' tuples with the following attributes:

- (i) Name
- (ii) Address
- (iii) Age
- (iv) Sex
- (v) Phone Number

(9 marks)

1(b) Differentiate between the Biometric multimedia database and traditional database and list three difficulties involved with multimedia database (8 marks)

1(c) What is database recovery? List three database storage devices and Identify three (3) causes of data loss from database (8 marks)

2(a) List and explain three (3) types of authorization on the part of the database (3 marks)

2(b) Outline three XML syntax Rules (3 marks)

2(c) Write short notes on the following:

- (i) Data Integrity
 - (ii) Data Security
 - (iii) Data Validation
- (3 marks each)

3(a) List and explain three (3) security measures used to protect database (6 marks)

3(b) List and explain four (4) advantages of an Open Source Software (4 marks)

3(c) (b) List any five (5) operators and their description in SQL (5 marks)

4(a) What is Distributed Database? (4 marks)

4(b) Describe the term "Open Source Software" and outline three merits (8 marks).

4(c) Outline three (3) advantages of Object Oriented Database Management System (3 marks)

5(a) Write short notes on the following:

- (i) Dead lock
- (ii) Encryption
- (iii) Data mining

(2 marks each)

5(b) What is a relational database? List and explain three (3) characteristics of Relational Database (7 marks)

5(c) Mention two basic update operations on relations (2 marks)