NATIONAL OPEN UNIVERSITY
University Village, Plot 91, Cadastral Zone, NnamdiAzikiwe Express Way,
Jabi, Abuja
Faculty of Science and Technology

Course Code : CIT427

Course Title : Database System Management

3 Credit Unit

INSTRUCTION: QUESTION 1 IS COMPULSORY AND ANY ANOTHER FOUR

1a (i) Define the term ‘database management system.’(3 marks)
(ii) Identify the main components of a database management system (2 marks)

b (i) List the common types of object-based logical models(3 marks)

(ii) How would a database administrator define a scheme?(2 marks)

c (i) How do sophisticated users interact with database systems?(2 marks)

(ii) Highlight the Advantages and Disadvantages of Web Services over other technologies (2 marks)

d (i) List at least four structural components of SQL (4 marks)

(ii) What is the core distinction between the auxiliary and internal memory? (2 marks)

eExplain how statements in a query language are translated.(2 marks)

(22 Marks)

2a State the link between entities and programming languages (4 marks)
b Identify the difference between the Read/Write and Read only storage.(4 marks)
cExplain the term Throughput.(4 marks)

(12 Marks)

3a Identify the relationship between the XML pointer language and the XML linking language. (4 marks)
b Briefly describe the concept of file organization(4 marks)
c State the specific roles of a data definition language.(4 marks)
(12 Marks)

4a State the specific role of the project operation.(4 marks)
b State the data structures required for physical systemimplementation DBMS. (4 marks)
cMention at least four methods of organising files (4 marks)
(12 Marks)

5a State the general syntax for deleting in database(4 marks)
b Identify the forms of accessibility, addressability.(4 marks)
cDescribe the concept of an interactive data manipulation language(4 marks)
(12 Marks)

6a Describe the Slow write, fast read storage.(4 marks)
b Highlight the Advantages and Disadvantages of Web Services over other technologies(4 marks)
c State the Entity-Relationship scheme for defining constraints.(4 marks)
(12 Marks)

7a Explain the concept of an entity set.(4 marks)
bDescribe 5 components of a data structure (4 marks)
cState the essential elements of an entity-relationship diagram (4 marks)
(12 Marks)