BOWEN UNIVERSITY IWO, OSUN STATE
COLLEGE OF COMPUTING AND COMMUNICATION STUDIES
COMPUTER SCIENCE AND INFORMATION TECHNOLOGY PROGRAM
B. SC. DEGREE FIRST SEMESTER EXAMINATION   SESSION: 2023/2024

COURSE TITLE: DATA MANGAGEMENT I
COURSE CODE: CIT 307 TIME ALLOWED: 2 HOURS   CREDIT: 3 UNITS
INSTRUCTION: ANSWER FOUR QUESTIONS: TWO FROM
                          TWO FROM SECTION B

SECTION A

QUESTION 1

a)	What is data management? Discuss four types of data management	**8 marks**
b)	Discuss the best practices of data management.	**8 marks**
c)	Discuss any four data management activities of your choice.	**9 marks**

QUESTION 2

a)	What is an Information Retrieval System?	**4 marks**
b)	Discuss the differences between cataloguing and indexing.	**4 marks**
c)	List and describe any three functional processes of information storage and retrieval system.	**13 marks**
d)	What are the objectives of information retrieval system?	**4 marks**

QUESTION 3

a)	What is a data warehouse?	**2marks**
b)	Discuss explicitly any three types data model of your choice, stating their merits and demerits.	**13 marks**
c)	What is the difference between a primary key and a foreign key? Show an illustrative example of them in a table form (relational model)?	**5 marks**
d)	Write a simple code for subtraction and addition in any programming language of your choice.	**5 marks**

SECTION B

QUESTION 4

a)	Discuss the three levels of data architecture.	**10 marks**
b)	Write a simple mysql code for any 2 tasks done in a data definition language.	**5 marks**
c)	What are the differences between data and information?	**5 marks**
d)	Discuss the categories of data and their examples.	**3 marks**
e)	What is information management?	**2 marks**

QUESTION 5

a) Define an entity and give an illustrative diagram?   **5 marks**
b) What are key and composite attributes, give an illustrative diagram of them?
                                                                          5 marks
c) Briefly explain one-to-one relationship and one-to-many relationship and give a basic
    illustration of them.   **5 marks**
d) What is generalization, aggregation and specialization? Give an illustrative diagram of
    them.   **10 marks**

QUESTION 6

a) Define normalization in database management system and describe 1NF (First Normal
    Form) using a relational database approach.   **8marks**
b) State and explain the components of a database.   **10 marks**
c) Discuss briefly the differences between file system and database approach. **7 marks**