



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
COMPUTER SCIENCE DEPARTMENT
2021 EXAMINATIONS

DAM301 – DATA MINING AND DATA WAREHOUSING

Credit: 3 units

TIME ALLOWED: 2¹/₂ Hours

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

QUESTIONS

1.
 - a. Discuss three applications areas of Data mining? **(3Marks)**
 - b. Illustrate vividly any five data mining databases (Flat files, Relational Database, Spatial Database, Transaction Database, and Multimedia Database) and their examples **(5 Marks)**
 - c. List and explain data mining systems classification **(4 Marks)**
 - d. Briefly list and discuss four data mining technologies **(4 Marks)**
 - e. What is the significance of data preparation in data mining **(2 Marks)**
 - f. Highlight the goals of data warehouse **(2 Marks)**
 - g. Highlight the following data warehouse components. **(2 Marks)**
2.
 - a. Briefly explain how data mining works **(3 Marks)**
 - b. Explain the two crows process model **(4 Marks)**
 - c. Illustrate the following applications of data mining
 - i. Spatial
 - ii. Science and engineering
 - iii Business
 - iv Games
 - v. Telecommunication **(5 Marks)**

3. a. Briefly discuss, the following trends in methods and technologies in Data mining
- i. Collective Data mining
 - ii Ubiquitous Data Mining
 - . iv Spatial and Geographic Data
 - v. Multimedia Data Mining **(4 marks)**
- b. Distinguish between Unsupervised learning and supervised learning used for hypertext and hypermedia data mining **(4 Marks)**
- c, Outline any four data mining tasks **(4 Marks)**
- 4a. Discuss discrimination and concept hierarchy operation **(5 Marks)**
- b. Highlight the following data transformation techniques
- i. Normalisation **(3 Marks)**
 - ii Generalisation **(2 Marks)**
 - iii Aggregation **(2 Marks)**
- 5.a. List and explain five types of data mined **(5 Marks)**
- b. Highlight the following data mining functionalities
- i. Outlier analysis **(2 Marks)**
 - ii. Evolution and analysis **(2 Marks)**
 - iii. Characterisation **(3 Marks)**
- 6.a. Outline the characteristics of data warehousing **(4 Marks)**
- b. State and outline with annotated diagrams the components of data warehouse **(4 Marks)**
- c. List and discuss data warehouse structure with diagram **(4 Marks)**