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: $2^1/_2$ 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)**