

NATIONAL OPEN UNIVERSITY OF NIGERIA 14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS SCHOOL OF SCIENCE AND TECHNOLOGY MAY/JUNE 2012 EXAMINATION

DAM 301 DATA MINING AND DATA WAREHOUSING TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER ANY FIVE QUESTIONS IN ALL

1a. Describe Data mining.

[5 marks]

1b. List and define all the steps involved in Knowledge Discovery Databases (KDD) process.

[7 marks]

1c. Briefly explain the scope of data mining under the following headings: i. Automated prediction of trends and behaviours.

[4 marks]

- ii. Automated discovery of previously unknown patterns. [4 marks]
- 2a. Explain any 5 types of data/information often collected in digital form in databases and flat files.

[10 marks]

- 2b Describe the following data mining terms?
 - i. Characterization.

[2 marks]

ii. Clustering.

[2 marks]

iii. Discrimination.

[2 marks]

- 2c. Briefly explain any 2 types of data that can be mined. [4 marks]
- 3a. Write short note on any three (3) classifications of data mining systems. [6 marks]
- 3b. Write notes on any three (3) data mining issue. *marks1*

[6

3c Discuss any four (4) challenges that may likely face by the data `mining practitioners.

[8 marks]

4a. Itemise ten (10) technologies or tools used in data mining. [5 marks] 4b. What is a Neural Network in a data mining technology? [4 marks] Explain with the aid of diagram what is meant by Decision tree. 4c. [11 marks] 5a. Highlight the three (3) common types of data preparation methods. [6 marks] Describe "why Data Pre-processing"? 5b. *[6]* marks1 5c. Data Mining Applications has a role to play in effective performance of Healthcare industries. Discuss. [8 marks] Data Mining Applications play some vital roles in Banking and Finance 6a. industries. Discuss. [8 marks1 Define Data Description and highlight sixteen (16) properties that are 6b. documented in a typical Data Description Report. [8 marks] 6c. Explain what is meant by Data Mining Technologies. *[4* marks] 7a. Write short note on Multimedia Data Mining. *[6]* marks] List and describe the characteristics of a data warehouse as set forth 7d. by William Inmon. [10 marks] Define a data warehouse. [4 7c. marks1