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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**

**FACULTY OF SCIENCE**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: DAM301**

**COURSE TITLE: Data Mining And Data Warehousing**

**CREDIT: 2 Units**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION: Answer Question ONE (1) and any other THREE (3) Questions**

1a) List in sequence the tasks involved in building a data mining database ***(4 marks)***

b) State the basic steps of data mining for knowledge discovery ***(3½ marks)***

c) Mention the major parts of Preparing Data for Modelling. ***(2 marks)***

d) State the major goals of Data Warehouse ***(4 marks)***

e) Enumerate other characteristics of Data Warehouseoutside the definition of William Inmon. ***(3 marks)***

f) State seven advantages and four disadvantages of Data Warehousing ***(5½ marks)***

2a) Constraint-Based Data Mining is a method of implementing some forms of human involvement into data mining. List and briefly explain any four of the various types of constraints that are used. ***(8 marks)***

b)Summarised Data is classified into two. State and describe them. ***(7 marks)***

3a)In data warehouse technology, a multiple dimensional view can be implemented by a relational database technique (ROLAP), or by a multidimensional database technique (MOLAP), or by a hybrid database technique (HOLAP). Briefly describe each implementation technique and its advantages and disadvantages. ***(9 marks)***

b) Enumerate the shortcomings of CART.  ***(3 marks)***

c) What are the characteristics of a data warehouse as set forth by William Inmon? ***(1 mark)***

d) Metadata lays out the physical structure of the data warehouse. State any four of this physical structure ***(2 marks)***

4a)List and explain the common types of data preparation method ***(6 marks)***

b) What are the reasons for data pre-processing ***(3 marks)***

c) Briefly discuss the roles of data mining in the following application areas: ***(6 marks)***

1. Science and engineering
2. Business
3. Transportation.

5) Describe the following concept of data mining functionalities:

1. Supervised classification ***(3 marks)***
2. Characterization ***(3 marks)***
3. Clustering ***(3 marks)***
4. Prediction regression ***(3 marks)***
5. Association analysis ***(3 marks)***