

## NATIONAL OPEN UNIVERSITY OF NIGERIA University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja FACULTY OF SCIENCE SEPTEMBER, 2020\_1 EXAMINATIONS

COURSE CODE: DAM301 COURSE TITLE: Data Mining and Data Warehousing CREDIT: 3 Units TIME ALLOWED: 2 <sup>1</sup>/<sub>2</sub> Hours INSTRUCTION: Answer Question 1 and any other FOUR (4) Questions

1a) What do you understand by association analysis? (4 marks)b) In the context of association analysis, what is confidence? (1 mark)

- c) Using the typical example of a supermarket, explain market basket analysis. (2 marks)
- d) Distinguish between evolution and deviation analysis (*3 marks*)
- e) State the major advantage of neural network models. (1 mark)

f) Identify the commonest type of neural network. (1 mark)

g) Summarised the problems associated with neural networks according to Arun Swami of Silicon Graphics Computer Systems and resultant effect of this problem. (*3 marks*)
h) Draw a simple decision tree illustrating all the basic components of a decision tree to describe the weather at a given time (*7 marks*)

**2a)** why do we pre-process data? (3 marks)

**b**) Briefly explain the objective measures for an association rule (7 marks)

c) Identify FOUR tasks in data pre-processing (2 marks)

3a) with the aid of illustrative diagram, detail the structure of data warehouse (9 marks)b) State six factors used in measuring the quality of a data. (3 marks)

## 4a) Discuss briefly the under-listed data mining issues

- i) Performance Issues (3 marks)
- ii) Interoperability (3 marks)
- b) Briefly summarize the following information often collected in digital form in databases And flat files:
  - i) Games (3 marks)
  - ii) Business Transaction (3 marks)

**5**) Briefly explain the following types of data that can be mined:

- (a) Flat files (3 marks)
- (b) Multimedia Database (3 marks)
- (c) Relational Databases (3 marks)
- (d) Data Warehouse (3 marks)

6a) Briefly discuss Mission Creep issue in data mining (3 marks)

b) With appropriate diagram, write on the neural network technology (9 marks)