CRAWFORD UNIVERSITY, FAITH CITY, IGBESA, OGUN STATE, NIGERIA
COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCES
SEMESTER; RAIN SESSION: 2017/2018
COURSE TITLE: DATA MINING AND WAREHOUSING; CODE: CSC 402; UNIT: 3;

TIME ALLOWED: 3 HRS; INSTRUCTION: ANSWER ANY FOUR QUESTIONS

QUESTION ONE

i. What is data mining? 3mks
ii. Explain the following terms: Data cleaning, Data transformation, Data integration, Pattern evaluation and Knowledge presentation. 10mks
iii. Present the pictorial representation of data mining as a step in the process of knowledge discovery. 2mks

QUESTION TWO

i. Suppose your task as a software engineer at *Crawford University* is to design a data mining system to examine the university course database contents as : the name, address, of each student, the courses taken, and the cumulative grade point average (GPA). Draw the *architecture* you would choose. 4mks.
ii. What is the purpose of each component of this architecture? 9mks
iii. How is a data warehouse different from a database? 2mks

QUESTION THREE

i. Conceptualize a typical framework of a data warehouse for *Crawford University Ventures* with branches in Lagos, Ibadan, Kaduna, and Ekiti. 7mks
ii. Explain how data can be processed for the data warehouse in order to improve the efficiency and ease of the data mining process. 8mks

QUESTION FOUR

i. Explain the following terms: Knowledge base, Data mining engine and Pattern evaluation module. 6mks
ii. Differentiate between Knowledge Discovery and Pattern Discovery in data mining. 2mks
iii. What are the different kinds of knowledge obtainable from a data warehouse? 2mks
iv. Who is a domain expert and why is such an expert required in data mining? 2mks.
At what step of the data mining process is a domain expert required? 3mks

QUESTION FIVE

i. "Learning is one of the basic necessities of life".
(a) What are the notable differences existing between data mining and machine learning? 6mks
(b) Explain the concept of learning as it occurs during a Data Mining process. 3mks
(c) Differentiate between the following types of learning : i. Supervised learning, and ii. Unsupervised learning. Give one example of each type. 6mks

QUESTION SIX

i. Mention the three segments constituting the 3-layer tier architecture of a data warehouse 3mks
ii. What are the contents of the three segments? 6mks
iii. Explain the functions of each segment contents 6mks

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