Assignment

INF 313: BUSINESS INTELLIGENCE

Collect on 3rd January 2025 mid-day, softcopy through your rep

a) Explain any five differences between transaction systems and business intelligence systems (5marks)

b) Explain any five differences between transaction data and business intelligence data (5marks)

c) List and explain any five ways an NGO could make use of clustering as a tool for Business Intelligence Explain the role of decision support systems in business intelligence (4 marks)

d) Discuss any **FOUR** characteristics of Big Data (4 marks)

e) Highlight any two advantages of decision tree in data mining and any two limitations of decision tree mining (4 marks)

f) Differentiate between classification and regression as paradigms of data mining (4 marks)

	District	House type	Income	Previous customer	outcome
1.	Suburban	Detached	High	No	Nothing
2.	Suburban	Detached	High	Yes	Nothing
3.	Rural	Detached	High	No	Responded
4.	Urban	Semi-detached	High	No	Responded
5.	Urban	Semi-detached	Low	No	Responded
6.	Rural	Semi-detached	Low	Yes	Nothing
7.	Sub-urban	Semi-detached	Low	Yes	Responded
8.	Sub-urban	Terrace	High	No	Nothing
9.	Sub-Urban	Semi-detached	Low	No	Responded
10.	Urban	Terrace	Low	No	Responded

11.	Sub-urban	Terrace	Low	Yes	Responded
12.	Rural	Terrace	High	Yes	Responded
13.	Rural	Detached	Low	No	Responded
14.	Urban	Terrace	High	Yes	Nothing

i) Develop a decision tree using the provided dataset (12 marks)

g) Referencing the data taxonomy, explain how data becomes knowledge (4marks)

h) Discuss any three approaches for handling noisy data in a data mining project (5marks)

i) Victor has a data mining task she wants to implement through a decisions tree. He is torn between a regression and a classification decision tree. Explain to him the difference between the two (6marks)

j) Giving suitable examples, explain how a telecommunication company could benefit from data mining in regard to attrition rate (6 marks)

k) With the aid of a suitable example present the structure of a Bayesian network then use it to explain the concept of Bayesian networks in data mining (6 marks)

l) Predictive analytics is one important business application of data mining. Describe any **THREE** data mining that would help a supermarket achieve in regard to predictive analytics (3 marks)

m) Discuss any **THREE** functions of data mining systems from business intelligence perspective (5 marks)

n) Identify and explain the two classes of knowledge (4 marks)

o) Briefly explain any **THREE** business intelligence processes (3 marks)

p) Use the provided dataset to answer the questions that follow