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JAYPEE UNIVERSITY OF INFORMATRION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- OCTOBER 2019

M.Tech I Semester

COURSE CODE: 13M1WCI331 MAX. MARKS: 25

COURSE NAME: Machine Learning

COURSE CREDITS: 03 MAX. TIME: 1.5 HR

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Q1& Q3-CO4, Q2:CO5*

1. What are different parameters to evaluate the rules inferred from decision trees? Write formulas for such parameters. Why decision trees can't perform well on continuous datasets? Explain with example. [2.5+2.5]

2. Consider the database of an electronic company shown in the table below:

Sid	Age	income	student	credit-rating	buys-computer
1	20	high	no	fair	no
2	20	high	no	excellent	no
3	40	high	no	fair	yes
4	60	medium	no	fair	yes
5	60	low	yes	fair	yes
6	60	low	yes	excellent	no
7	40	low	yes	excellent	yes
8	20	medium	no	fair	no
9	20	low	yes	fair	yes
10	60	medium	yes	fair	yes
11	20	medium	yes	excellent	yes
12	40	medium	no	excellent	yes
13	40	high	yes	fair	yes
14	60	medium	no	excellent	no

Predict the income of a student with information {age=20, student=yes, credit-rating=fair and buy-computer=yes}. [10]

3. Consider the weather data set given below:

Outlook	Temperature	Humidity	Windy	Play
Sunny	Hot	High	False	No
Sunny	Hot	High	True	No
Overcast	Hot	High	False	Yes
Rainy	Mild	High	False	Yes
Rainy	Cool	Normal	False	Yes
Rainy	Cool	Normal	True	No
Overcast	Cool	Normal	True	Yes
Sunny	Mild	High	False	No
Sunny	Cool	Normal	False	Yes
Rainy	Mild	Normal	False	Yes
Sunny	Mild	Normal	True	Yes
Overcast	Mild	High	True	Yes
Overcast	Hot	Normal	False	Yes
Rainy	Mild	High	True	No

The above dataset will be used by ICC (International Cricket Council) for its tournaments schedule. Generate the information to predict whether the game will be played or not? [10]