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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

M.Tech III Semester

COURSE CODE: 13M1WCI331

MAX. MARKS: 15

COURSE NAME: Machine Learning

COURSE CREDITS: 03

MAX. TIME: 1Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. Explain KDD process in detail with suitable diagram. Give suitable examples while answering. [3]
2. 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

Table 1: Weather Data Set

Let the attribute temperature = {10,15,20,20,25,30,30,35,40,45,50,55,10,21}. Map the given temperature attribute to the temperature attribute given in table 1 using entropy based discretization. [7]

3. Apply the following normalization techniques on the data {10,15,20,20,25,30,30,35,40,45,50,55,10,21}. [5]
 - (i) Min Max Normalization with range -1 and 1
 - (ii) Z score Normalization
 - (iii) Decimal scaling normalization