

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- SEPTEMBER 2019

M.Tech. I 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. How machine learning algorithms are different from ordinary computer algorithms? What are the different contemporary challenges to machine learning research community? [CO1] [2+1+2]
2. a. What do you mean by entity identification problem in data integration? Explain with suitable example. Also name and explain the method to cope with the same.  
b. Suppose we are interested in analyzing transactions at ALLELECTRONICS with respect to the purchase of computer games and videos. Of the 10000 transactions analyzed, the data show that 6000 of the customer transactions included computer games, while 7500 included videos and 4000 included both computer games and videos. (i) Make the contingency table and calculate degree of freedom (ii) Compute the correlation using chi-square statistics. The chi-square value for alpha 0.001 for the computed degree of freedom is 10.57. Conclude whether the hypothesis is true or false. [CO2] [2+3]
3. What do you mean by data transformation? Explain different methods of data transformation? Why Zero score method is more dominant than other methods? Justify your answer. [CO2] [5]