

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech., Winter 2017 - 18 Examination

Semester: 2**Subject Code: 03201151****Subject Name: Machine Learning****Date: 08/01/2018****Time: 02:00PM to 04:30PM****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 A) Enumerate issues in machine learning. **(05)**

B) Write a short note on representational power of Perceptrons. **(05)**

C) What are features of Bayesian Learning method. **(05)**

Q.2 Answer the following questions. (Attempt any three) (Each five mark) **(15)**

A) Write short note on ID3 algorithm.

B) Describe KNN Classifier with help of example.

C) Write a short note on Support Vector Machines.

D) Differentiate between Supervised and Unsupervised learning.

Q.3 A) What is Clustering. Describe k-means clustering with help of example. **(07)**

B) Explain BACKPROPAGATION Algorithm. **(08)**

OR

B) Compare Parametric and non-parametric methods. **(08)**

Q.4 A) Illustrate operation of Q learning algorithm. **(07)**

OR

A) Show Single Point Crossover, Two Point Crossover, Uniform Cross Over & Point Mutation with respect to Genetic Algorithm. Use strings 11101001000 & 00001010101. **(07)**

B) Write short note on Deep Learning. **(08)**