Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination

Mar 2019

Max. Marks: 20

Class: M.Tech.

Course Code: CEE924

Name of the Course: Machine Learning

Duration: 60 Mins.

Semester: II

Branch: Computer Engineering

Instruction:

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

Q No.		Max. Marks	CO
Q.1	Outline the key tasks or key jobs of machine learning.	05	CO1
Q.2	What are the different steps in ID3 algorithms? OR What is linear Regression? Explain with examples. Differentiate between Linear and Logistic Regression.	05	CO2
Q.3	Let's consider the dataset in the table below and draw a decision tree using gini index.	10	CO3

INDEX	A	B	C	D	E
1	4.8	3.4	1.9	0.2	Positive
2	5	3	1.6	1.2	Positive
3	5	3.4	1.6	0.2	Positive
4	5.2	3.5	1.5	0.2	Positive
5	5.2	3.4	1.4	0.2	Positive
6	4.7	3.2	1.6	0.2	Positive
7	4.8	3.1	1.6	0.2	Positive
8	5.4	3.4	1.5	0.4	Positive
9	7	3.2	4.7	1.4	Negative
10	6.4	3.2	4.7	1.5	Negative
11	6.9	3.1	4.9	1.5	Negative
12	5.5	2.3	4	1.3	Negative
13	6.5	2.8	4.6	1.5	Negative
14	5.7	2.8	4.5	1.3	Negative
15	6.3	3.3	4.7	1.6	Negative
16	4.9	2.4	3.3	1	Negative