Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

VII SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)

END SEMESTER EXAMINATIONS, NOV/DEC 2016

SUBJECT: NEURAL NETWROKS AND FUZZY SYSTEMS [CSE 431]

REVISED CREDIT SYSTEM
06-12-2016

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer **ANY FIVE FULL** questions.
- Missing data may be suitable assumed.

1A.	Explain the perceptron model, with the required formula.	**5M**
1B.	What is Artificial Neuron? Explain.	**3M**
1C.	What is Binary Activation Function? Explain.	**2M**
2A.	What is Stochastic Model of Neuron? Explain.	**5M**
2B.	What is Competitive learning? Explain.	**5M**
3A.	What is the difference between Supervised and Unsupervised Learning? Explain.	**4M**
3B.	Explain Principal Component Analysis with an example.	**3M**
3C	Give the Single Layer perceptron Algorithm.	**3M**
4A.	Give the Back propagation Algorithm.	**3M**
4B.	What is unsupervised Hebb's Rule? How will you make it Supervised?	**5M**
4C.	What is Learning with Critic? Explain.	**2M**
5A.	Explain Gram Schmidt Orthogonalization, with an example.	**4M**
5B.	What are linearly Dependent and Linearly Independent sets?	**4M**
5C	What do you mean by Norm? Explain.	**2M**
6A.	What are fuzzy sets and their operations? Explain.	**6M**
6B.	What are fuzzy set properties? Explain.	**4M**