



Sanjay Ghodawat University, Kolhapur

2017-18

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

FY M Tech

School of Technology

Semester I

EES 509.2

Intelligence Systems – (Elective-I)

Max Marks: 100

~~Nov~~ 2017

End Semester Examination (ESE)

Time: 3 Hrs

13 DEC

- Instructions for Students:**
- 1) Use of non-programmable calculator is allowed
 - 2) All questions are compulsory

		Marks	COs
Q1	Solve any Two		
a)	Write a note on History and evolution of Artificial Neural Network.	08	CO1
b)	Explain in detail the basic structure of a Neuron/Perceptron.	08	CO1
c)	Describe types of machine learning with reference to neurons.	08	CO1
Q2	Solve any Two		
a)	Elaborate with a schematic XOR problem with a single perceptron.	06	CO2
b)	Draw and explain the working of multilayer feed forward network.	10	CO2
OR			
b)	List all and describe in detail any one perceptron learning rule.	10	CO2
Q3	Solve any Two		
a)	Describe the Disadvantages problems with back propagation algorithm.	09	CO3
b)	Illustrate Boltzmann's training algorithm in neural networks	09	CO3
c)	Explain Cauchy's Training Algorithm in detail.	09	CO3
Q4	Solve any Two		
a)	Describe Hopfield network with suitable diagram.	09	CO4
b)	Explain Adaptive resonance theory (ART) in detail.	09	CO4
c)	Explain with example character recognition using ANN	09	CO4
Q5	Solve any Two		
a)	Compare and contrast between crisp set theory vs Fuzzy Set theory	08	CO5
b)	Elaborate common operations on of Fuzzy Sets.	08	CO5
c)	Explain t- norms and t-conorm used in Fuzzy sets.	08	CO5
Q6	Solve any Two		
a)	Explain laws of Fuzzy Propositions.	08	CO6
b)	Write short notes on: i) Fuzzy Quantifiers ii) Linguistic hedges.	08	CO6
c)	Describe Fuzzy Control Systems with a neat diagram.	08	CO6
