KUMARAGURU
college of technology
character is life

Register Number:……

M.E DEGREE EXAMINATIONS: NOV/DEC 2014

Regulation 2013

Third Semester

P13AETE08: SOFT COMPUTING

(Common to Applied Electronics & Communication System)

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. State Perceptron convergence theorem.
2. What is Hebbian learning?
3. What is the use of extension principle?
4. Draw single input Tsukamoto fuzzy model.
5. List out the stoping criteria's for the decent procedures.
6. Why the line searchers are important?
7. Differentiate internal and external nodes in decision tree.
8. Mention the unique properties of ANFIS controllers.
9. "Reproduction is called as selection operator"-Reason out.
10. Compare two point and multi point crossovers.

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

Q.No:11 is Compulsory

11. With neat sketch explain about the working of Kohenon self organizing neural network.

12. Illustrate in detail about the back propagation multilayer perceptron neural networks.

13. With an example discuss about the Mamadani fuzzy model.

14. Illustrate with neat sketch the following derivative free optimization methods:

(i). Random Search (8)

(ii). Downhill Simple Search (8)

15. Explain in detail about the following

(i). K-means Clustering (8)

(ii). Fuzzy C-means Clustering (8)

Highlight the issnes in each approach.

16. Discuss the Roulette wheel selection and Tournament selection used for selecting chromosomes for parents to cross over with an example.

****