USN										
-----	--	--	--	--	--	--	--	--	--	--

15EE661

Sixth Semester B.E. Degree Examination, Dec.2018/Jan.2019 Artificial Neural Networks and Fuzzy Logic

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

Explain briefly: a. Biological neuron

c. Leasming methods of artificial neuron.

b. Artificial neuron

(16 Marks)

OR

- 2 Describe briefly:
 - a. Back propagation network
 - b. Perceptron model
 - c. Single layer artificial neural network
 - d. Applications of neural network.

(16 Marks)

Module-2

- 3 Briefly explain:
 - a. Effect of tuning parameters of back propagation network
 - b. Auto correlatotrs
 - c. Hetero correlators
 - d. Exponentical BAM
 - e. Applications of BAM (Bidirectional Associative Memory).

(16 Marks)

OF

Explain: a. Adaptive resonance theory b. Applications of adaptive resonance theory c. Sensitivities of ordering of data. (16 Marks)

Module-3

5 Explain:

8

- a. Various applications of adaptive resonance theory
- b. Sensitivities of ordering of data based on adaptive resonance theory.

(16 Marks)

OR

6 Briefly explain: a.

Explain briefly:

- a. Fuzzy Vs Crisp
- b. Crisp set

c. Fuzzy set.

(16 Marks)

Module-4

Describe briefly: a. Fuzzy relations b. Crisp relations c. Applications of fuzzy relations.

(16 Marks)

- OR
- a. Crisp logic
- b. Predicate logic
- c. Fuzzy logic.

b. Defuzzification methods

(16 Marks)

Module-5

- 9 Describe : a. Fuzzy rule based system
 - c. Applications of fuzzy based system.

(16 Marks)

OR

- Explain: a. Representation of type 2 fuzzy sets
 - b. Operations of type -2 fuzzy sets
 - c. Internal type 2 fuzzy sets.

(16 Marks)

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

* * * *