

M.C.A. DEGREE III SEMESTER EXAMINATION, NOVEMBER 2006

CAS 2312 INTELLIGENT SYSTEMS

Time: 3 Hours

Maximum marks : 50

PART A(Answer **ALL** questions)(All questions carry **EQUAL** marks)

(5 x 6 = 30)

- I.
 - a. Define framework of a neural network.
 - b. Define symmetrical connections.
 - c. What is madaline ?
- II.
 - a. What do you mean by credit and blame assignment ?
 - b. What is clustering ?
 - c. What is vector quantization ?
- III.
 - a. What do you mean by recurrent back propagation ?
 - b. What are the major limitations of Hopfield net ?
 - c. What are the uses of Adaptive Resonance Theory Networks ?
- IV.
 - a. Name the commonly applied rules of inference in logic.
 - b. What is defuzzification ?
 - c. What do you mean by degree of possibility ?
- V.
 - a. What is fuzzy complement ?
 - b. Define fuzzy relation.
 - c. What do you mean by similarity relation ?

PART B(Answer **ALL** questions)(All questions carry **EQUAL** marks)

(5 x 4 = 20)

- VI. A. What is a neural network ? Discuss the learning in simple neurons.
OR
- VI. B. Write a short note on perceptrons.
- VII. A. What is back propagation ? Discuss.
OR
- VII. B. Discuss on Kohonen's self organizing network.
- VIII. A. What is an associative memory ? Discuss in detail.
OR
- VIII. B. Discuss on the following:
 - (i) Boltzmann machines
 - (ii) Recurrent networks
- IX. A. Give an overview of classical logic.
OR
- IX. B. What is fuzzy logic ? Discuss.
- X. A. Discuss the basic operations of fuzzy sets.
OR
- X. B. Discuss the following:
 - (i) Equivalence relations
 - (ii) union