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**CAVS-N 386 B-14**  
**B.C.A Vth Semester Degree Examination**  
**Computer Science**  
**(Soft Computing Elective- I)**  
**Paper - BCA 5.5(C)**  
**(New)**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates:**

*Answer all sections*

**SECTION - A**

**Answer all questions.**

**(10×2=20)**

1. a) Define Soft Computing.
- b) Various activation function used in ANN.
- c) Define neural network architecture.
- d) Define Weights.
- e) What is called the principles of incompatibility.
- f) What is Leaky learning.
- g) Write an example for linguistic variable & values.
- h) What is hamming net.
- i) Define a binary fuzzy box tree
- j) Expand CANFIS.

**SECTION - B**

**Answer any four questions.**

**(4×5=20)**

- 2) Explain MC-culloh model.
- 3) Explain the working of counter progration network.
- 4) With suitable block diagram explain the working principles of FIS.

- 5) What are the application of genetic algorithm.
- 6) Convert the following sentence to predicate logic.
  - i) Marcus was a man.
  - ii) All man are mortal.
- 7) What is significance of widrow's learning.

**SECTION - C**

**Answer any Four questions.**

**(4×10=40)**

- 8) Explain the various problems in representing knowledge.
  - 9) Describe taxonomy of neural network.
  - 10) State & Discuss the different training procedures.
  - 11) What is decision making? Explains.
  - 12) Explain binary encoding for knap'sack problem.
  - 13) Write a short notes on
    - i) Net talk.
    - ii) ADALINE.
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