

**SF - 961**

Total No. of Pages : 2

Seat No.	
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**B.E. (CSE) (Semester - VII) (Revised) Examination, November - 2017**  
**SOFT COMPUTING (EI-1)**  
**Sub. Code: 67545**

Day and Date : Tuesday, 21 - 11 - 2017  
Time : 2.30 p.m. to 5.30 p.m.

Total Marks : 100

- Instructions :
- 1) Attempt any THREE questions from each section.
  - 2) Figures to the RIGHT indicates FULL marks.
  - 3) Assume suitable data if necessary.

**SECTION - I**

**Q1) a)** Explain Fuzzy Genetic Hybrid System. **[8]**

b) State basic models of ANN, based on model's synaptic connection draw and explain each model. **[8]**

**Q2) a)** Explain perceptron training algorithm of ANN. **[8]**

b) What is role of activation function in ANN? State different activation functions with applications. **[8]**

**Q3) a)** What is supervised learning in ANN? State different types of supervised learning, draw and explain reinforcement learning. **[8]**

b) Explain linear separability problem using decision boundary line. **[8]**

**Q4) Write Short Notes on (Any Three)** **[3 × 6 = 18]**

- a) Neuro-Fuzzy Hybrid system.
- b) Biological Neural Network.
- c) M-P Neuron Model.
- d) Multiple Adaptive Linear Neuron.

**P.T.O.**

**SECTION - II**

- Q5)** a) What is cross over point in Fuzzy Set? Define height of Fuzzy set. [8]  
 b) What is necessity of Defuzzification? Explain any two methods of Defuzzification process. [8]
- Q6)** a) Explain rule based and approximate reasoning in fuzzy sets. [8]  
 b) What are Holland classifier systems in GA? Explain bucket brigade algorithm. [8]
- Q7)** a) Compare traditional algorithms Vs Genetic algorithms. [8]  
 b) Explain scientific and engineering applications of Genetic Algorithms. [8]
- Q8)** Write Short Notes on (Any Three) [6 × 3 = 18]  
 a) GA based Internet Search.  
 b) Fuzzy Logic Control System.  
 c) Schema theorem.  
 d) Fuzzy decision making.

