

D 50504

(Pages : 2)

Name
Reg. No.



SEVENTH SEMESTER B.TECH. (ENGINEERING)
EXAMINATION, NOVEMBER 2013

CS 09 L19—SOFT COMPUTING

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

- I. (a) Define the Genetic operators.
- (b) How is learning done in neural networks ?
- (c) Mention any *two* applications of neural network.
- (d) Define Fuzzification.
- (e) Mention the limitations of SVM.

(5 × 2 = 10 marks)

Part B

Answer any four questions.

- II. (a) Write the pseudocode of the Genetic Algorithm.
- (b) What do you mean by Intelligent Systems ? Give an example.
- (c) How does a neural network work ? Give an example.
- (d) Write a short note on the working of Hopfield network.
- (e) Mention any one application which uses the Fuzzy logic principles.
- (f) Write about the requirements of the support vector machines.

(4 × 5 = 20 marks)

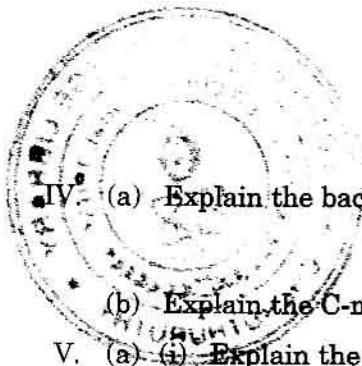
Part C

- III. (a) Write a solution for the Traveling Salesman Problem using Genetic Algorithm. Assume the parameters and data of your choice.

Or

- (b) Explain the following terms :—
 - (i) Chromosome.
 - (ii) Fitness function.
 - (iii) Cross-over.
 - (iv) Mutation.

Turn over



IV. (a) Explain the back propagation training method along with its limitations.

Or

(b) Explain the C-means algorithm in detail.

V. (a) (i) Explain the fuzzy membership function.

(5 marks)

(ii) Explain the advantages and disadvantages of using the Fuzzy logic.

(5 marks)

Or

(b) Briefly describe the application of Fuzzy logic in Flexible Manufacturing System (FMS).

VI. (a) Brief about the principle of operation involved in swarm intelligence.

Or

(b) Explain the working of the support vector machines in detail.

[4 × 10 = 40 marks]