

**M.Tech. IN ADVANCED INFORMATION
TECHNOLOGY - INTELLIGENT SYSTEMS AND
ROBOTICS (MTECHSR)**

Term-End Examination

December, 2015

MINI-045 : APPLIED ARTIFICIAL INTELLIGENCE

Time : 3 hours

Maximum Marks : 100

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- Note :** (i) *Section-I is compulsory. Section-I carries 30 marks.*
- (ii) *Section-II; Answer any five questions. Section- II carries 70 marks.*
- (iii) *Assume suitable data wherever required.*
- (iv) *Draw suitable sketches wherever required.*
- (v) *Figures to the right indicate maximum marks.*
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SECTION - I

1. Explain biological neuron with suitable diagram. 10
2. Describe the steps required in implementation of Genetic algorithm. 10
3. Explain the process of De-Fuzzyfication. 10

SECTION - II

4. Explain how the Fuzzy logic is applied to control the working of a washing machine. 14

5. Differentiate between supervised and un-supervised learning methods with examples. 14
 6. Explain the considerations for selecting breadth first or depth first search. 14
 7. Explain Kohenns Self Organizing Maps. Where are they used ? 14
 8. Explain how can simulated Annealing be used for finding a value close to smallest value in a large data set. 14
 9. Describe Adaptive Resonance Theory with an example. 14
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