# B. Tech Degree VII Semester (Supplementary) Examination June 2008

### IT 701  NEURO  COMPUTING
*(1999  Scheme)*

Time : 3 Hours                                                                           Maximum Marks : 100

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|---|---|---|---|
| I. | (a) | Distinguish between supervised and unsupervised learning. | (10) |
| | (b) | Explain the concept of linear separability with XOR problem as an example. | (10) |

**OR**

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| II. | (a) | What are recurrent networks? | (8) |
| | (b) | Explain different classes of PDP models. | (12) |

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| III. | (a) | Describe ADALINE model. | (10) |
| | (b) | Write notes on : (i) Perceptron  (ii) Delta rule. | (10) |

**OR**

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| IV. | (a) | Explain the back propagation training algorithm for perceptron. | (10) |
| | (b) | How neural networks can be used for image recognition? | (10) |

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| V. | (a) | Describe the ART classification operation. | (10) |
| | (b) | Explain the different phases of ART system. | (10) |

**OR**

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| VI. | | Explain the architecture of ART. | (20) |

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| VII. | | What are Hopfield networks?  What are the applications of Hopfield networks? | (20) |

**OR**

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| VIII. | | Explain BAM. | (20) |

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| IX. | (a) | Describe the cognitron model. | (10) |
| | (b) | Explain the training methods of cognitron. | (10) |

**OR**

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| X. | (a) | Explain the training of  Kohonen layer. | (15) |
| | (b) | Write short notes on counter propagation networks. | (5) |

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