Code No: RR410405 **RR** **Set No. 2**

IV B.Tech I Semester Examinations,November 2010
ARTIFICIAL NEURAL NETWORKS
Common to Bio-Medical Engineering, Electronics And Telematics, Electronics And Instrumentation Engineering, Electronics And Communication Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. How can an Artificial Neural Network be applied in business? Give few applications. [16]

2. Write short note on:
   (a) Annealing techniques
   (b) Perceptron
   (c) Learning curves. [4+6+6]

3. Write short notes on the following:
   (a) Hessian matrix
   (b) Cross validation
   (c) Feature detection. [4+6+6]

4. Explain with suitable example about back propagation algorithm. Discuss the convergence of the algorithm. What are the methods followed to select weight vector. [16]

5. What is meant by topology of Artificial neural networks? Give few basic topological structures of artificial neural networks? [16]

6. Explain in detail about stochastic learning. [16]

7. (a) Explain briefly about Hamming network.
   (b) What is the purpose of learning vector quantization? [6+10]

8. Discuss about the associative memory of Spatio-temporal pattern. [16]

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Code No: RR410405 **RR** **Set No. 4**

IV B.Tech I Semester Examinations,November 2010
ARTIFICIAL NEURAL NETWORKS
Common to Bio-Medical Engineering, Electronics And Telematics, Electronics And Instrumentation Engineering, Electronics And Communication Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain with suitable example about back propagation algorithm. Discuss the convergence of the algorithm. What are the methods followed to select weight vector. [16]
2. Discuss about the associative memory of Spatio-temporal pattern. [16]
3. How can an Artificial Neural Network be applied in business? Give few applications. [16]
4. (a) Explain briefly about Hamming network.
   (b) What is the purpose of learning vector quantization? [6+10]
5. Write short note on:
   (a) Annealing techniques
   (b) Perceptron
   (c) Learning curves. [4+6+6]
6. What is meant by topology of Artificial neural networks? Give few basic topological structures of artificial neural networks? [16]
7. Write short notes on the following:
   (a) Hessian matrix
   (b) Cross validation
   (c) Feature detection. [4+6+6]
8. Explain in detail about stochastic learning. [16]

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Code No: RR410405 **RR** **Set No. 1**

IV B.Tech I Semester Examinations,November 2010
ARTIFICIAL NEURAL NETWORKS
Common to Bio-Medical Engineering, Electronics And Telematics, Electronics And Instrumentation Engineering, Electronics And Communication Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. What is meant by topology of Artificial neural networks? Give few basic topological structures of artificial neural networks? [16]
2. How can an Artificial Neural Network be applied in business? Give few applications. [16]
3. Discuss about the associative memory of Spatio-temporal pattern. [16]
4. Explain in detail about stochastic learning. [16]
5. Explain with suitable example about back propagation algorithm. Discuss the convergence of the algorithm. What are the methods followed to select weight vector. [16]
6. Write short note on:
   (a) Annealing techniques
   (b) Perceptron
   (c) Learning curves. [4+6+6]
7. (a) Explain briefly about Hamming network.
   (b) What is the purpose of learning vector quantization? [6+10]
8. Write short notes on the following:
   (a) Hessian matrix
   (b) Cross validation
   (c) Feature detection. [4+6+6]

⋆ ⋆ ⋆ ⋆ ⋆

Code No: RR410405 **RR** **Set No. 3**

IV B.Tech I Semester Examinations,November 2010
ARTIFICIAL NEURAL NETWORKS
Common to Bio-Medical Engineering, Electronics And Telematics, Electronics And Instrumentation Engineering, Electronics And Communication Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Explain in detail about stochastic learning. [16]
2. (a) Explain briefly about Hamming network.
   (b) What is the purpose of learning vector quantization? [6+10]
3. Write short notes on the following:
   (a) Hessian matrix
   (b) Cross validation
   (c) Feature detection. [4+6+6]
4. Explain with suitable example about back propagation algorithm. Discuss the convergence of the algorithm. What are the methods followed to select weight vector. [16]
5. Discuss about the associative memory of Spatio-temporal pattern. [16]
6. What is meant by topology of Artificial neural networks? Give few basic topological structures of artificial neural networks? [16]
7. How can an Artificial Neural Network be applied in business? Give few applications. [16]
8. Write short note on:
   (a) Annealing techniques
   (b) Perceptron
   (c) Learning curves. [4+6+6]

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