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| **UNIT-1** | | |
| **1 MARKS QUESTIONS** | |
| 1. | Define Artificial neural networks? |
| 2. | Discuss applications of DL? |
| 3. | What is important terminology of ANN? |
| 4. | Explain the Supervised learning networks? |
| 5. | Explain perceptron network? |
| 6. | Define BAM? |
| 7. | Explain the adaptive linear neuron? |
| 8. | Define Hopfield networks? |
| 9. | Define perceptron? |
| 10. | Write backpropagation algorithm. |
| **10 MARKS QUESTIONS** | | |
| 1. | Define ANN. Explain basic models of ANN. |
| 2. | Describe training algorithm for pattern association. |
| 3. | Explain back propagation, briefly. |
| 4. | Briefly explain adoptive linear neuron with diagram. |
| 5. | Explain in detail about Hopfield network. |
| 6. | Define associative memory networks briefly. |
| 7**.** | Define adaptive linear neuron briefly. |
| 8. | Explain briefly about the BAM network. |
| 9. | Explain single layer perceptron and multi layer perceptron. Explain with its limitations. |
| 10. | What is [auto associative memory network](https://www.geeksforgeeks.org/auto-associative-neural-networks/) and [auto associative memory network](https://www.geeksforgeeks.org/auto-associative-neural-networks/) ? |
|  | **Unit – III** |
| **1 MARKS QUESTIONS** |
| 1. | What is unsupervised learning? |
| 2. | What is LVQ ? |
| 3. | Define feature map? |
| 4. | What are self organizing networks. |
| 5. | What is hamming distance. |
| 6. | What is maxnet. |
| 7. | What is ART and its applications. |
| 8. | What is instar and outstar learning rule. |
| 9. | Write various networks in ANN. |
| 10. | What are the CP operations. |
| **10 MARKS QUESTIONS** | | |
| 1. | Explain unsupervised learning network? |
| 2. | Explain about hamming network? |
| 3. | Write learning vector quantization. |
| 4. | What is fixed weight competitive nets . |
| 5. | Explain counter propagation networks. |
| 6. | Explain in detail about maxnets. |
| 7. | Explain Kohonen self-organizing feature map. |
| 8. | Explain adoptive resonance theory networks and its advantages. |
| 9. | What are counter propagation networks |
| 10. | Discuss about special networks in ANN. |

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| **Unit – III** | | |
| **1 MARKS QUESTIONS** | | |
| 1. | Define Deep learning? |
| 2. | Explain gradient based learning. |
| 3 | What is feed forward network. |
| 4. | Explain cost function. |
| 5. | Explain softmax function. |
| 6. | Explain hidden units along with RBF and softplus. |
| 7 | Explain backpropogation. |
| 8. | What are symbol to symbol derivatives. |
| 9. | Define MLP. |
| 10. | Explain cross entropy operation. |
| **10 MARKS QUESTIONS** | | |
| 1. | Discuss feedforward networks in detail. |
| 2. | Write notes on (i)linear units (ii)sigmoid units (iii)softmax units |
| 3. | Explain softmax units for multinoulli output distribution. |
| 4 | What is sigmoid units for Bernoulli output distribution. Explain in brief |
| 5. | What is cost function with learning conditional distribution. |
| 6. | What is hidden units and its architecture design. |
| 7. | Explain about computational graphs . |
| 8. | Explain about chain rules of calculus. |
| 9. | Explain backpropogation in fully-connected MLP . |
| 10 | Explain briefly about other differentiation algorithms. |