

- Q.17 What is single layer perception network. Discuss. (CO2)
- Q.18 Explain perception training algorithm for multiple output classes. (CO2)
- Q.19 Draw the architecture adaptive linear neuron network. (CO3)
- Q.20 Explain any four major feature of java. (CO3)
- Q.21 Write the applications of neural networks. (CO4)
- Q.22 Discuss about characters recognition networks. (CO4)

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Discuss the basic model of neural network. Also discuss various types of learning in neural networks. write the advantages of neural networks. (CO1)
- Q.24 Write comparison between adaptive linear neuron , Multiple adaptive linear neuron and back propagation networks. (CO3)
- Q.25 What is robot kinematics. Explain in detail the process identification networks for it. (CO4)

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### 3rd Sem / Artificial Intelligence & Machine Learning

#### Subject : Neural Networks

Time : 3 Hrs.

M.M. : 60

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Which is true for neural networks ? (CO1)
- a) It has set of nodes and connections
  - b) each node computes it's weighted input
  - c) node could be in excited state or non-excited state
  - d) All of the mentioned
- Q.2 Example of a unsupervised feature map ? (CO3)
- a) Text recognition
  - b) voice recognition
  - c) image recognition
  - d) None of the mentioned

Q.3 How many types of Artificial Neural Networks?  
(CO1)

- a) 2                                      b) 3
- c) 4                                      d) 5

Q.4 Automated vehicle is an example of (CO4)

- a) supervised learning
- b) unsupervised learning
- c) active learning
- d) reinforcement learning

Q.5 What is back propagation? (CO3)

- a) It is another name given to the curvy function in the perceptron
- b) It is the transmission of error back through the network to adjust the inputs
- c) It is the transmissions of error back through the network to allow weight to be adjusted so that the network can learn
- d) None of the above

Q.6 What is the most direct application of neural network. (CO4)

- a) Vector quantization
- b) Pattern mapping
- c) Pattern classification
- d) control applications

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## SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Full form of ANN. (CO1)

Q.8 The \_\_\_\_\_ is a single layer feed forward network. (CO2)

Q.9 Full form of RNN. (CO1)

Q.10 Define neuro software. (CO4)

Q.11 \_\_\_\_\_ is also called exploratory learning. (CO3)

Q.12 Write the two types of robot kinematics. (CO4)

## SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Discuss the basic concept of artificial neural network. (CO1)

Q.14 Write difference between supervised and unsupervised learning. (CO3)

Q.15 Explain feed feedback neural networks (CO1)

Q.16 Explain Hebbian Learning. (CO2)

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