

Tribhuvan University
Institute of Science and Technology
2071
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Bachelor Level / Third Year /Fifth Semester/Science
Computer Science and Information Technology (CSc.311)
(Neural Networks)

Full Marks: 60
Pass Marks: 24
Time: 3 hours

*Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.*

Attempt any ten questions.

(6x10=60)

1. Define neural network. Compare and contrast the biological and artificial neural network.
2. With the help of suitable diagram discuss functioning of a simple artificial neuron.
3. Explain the most popular algorithm for training a neural network. What is its principle.
4. Differentiate between a feed forward network and a recurrent network.
5. Draw the architecture of a multilayer perceptions (MLPs) and explain its operations.
6. What do you mean by linear associative mapping? Explain.
7. Explain the correlational – based learning with example.
8. Differentiate between delta rule and generalized delta rule.
9. Explain the multilayer-feed forward network structure with example.
10. What is meant by generalization? Explain.

11. Write short notes on:

(3x2=6)

(a) Linear separability

(b) Weight space

