

# Manarat International University (MIU)

Department of Computer Science and Engineering

CT-1 (Summer 2019)

Artificial Intelligence (CSE-411)

Full Points: 20

Female Section

Time: 25 Minutes

ID .....

1 Write down the pseudo-code of perceptron learning algorithm. 6

2 Explain the weight update formula used by the gradient descent algorithm. 4

3 Why do we need back-propagation algorithm to train an ANN model ?

4

4

- a) In the gradient descent method, one way to escape from the local minimum is to add a/an ..... to the weight update formula.
- b) One approach to handling noise is to use a validation set to determine the ..... of the model.
- c) Finding the right ..... is not an easy task for an ANN.
- d) For nonlinear error function, it is possible that the gradient descent method may get trapped in a .....
- e) In a ..... neural network, the links may connect nodes within the same layer or nodes from one layer to the previous layers.
- f) If the problem is not linearly separable, perceptron learning algorithm ..... to converge.

6