1. For the same size of training data as input, the fastest learning techniques is
   (a) Supervised training with error correction.
   (b) Supervised training with stochastic method.
   (c) Supervised training without error calculation.
   (d) Supervised training with Hebbian method.

2. Hebbian learning is a form of
   (a) Supervised Learning
   (b) Unsupervised learning
   (c) Reinforced learning
   (d) Stochastic learning

3. In case of layer calculation, the maximum time involved in
   (a) Output layer computation.
   (b) Hidden layer computation.
   (c) Equal effort in each layer.
   (d) Input layer computation.

4. The Back Propagation Learning algorithm is used to train
   (a) a single layer feed forward neural network only
   (b) a multiple layer feed forward neural network only
   (c) a recurrent neural network only
   (d) any artificial neural network

5. In this learning method, those neurons which responds strongly to input stimuli have their weights updated
   (a) Competitive learning
6. Training Perceptron is based on

(a) Supervised learning technique.
(b) Unsupervised learning
(c) Reinforced learning
(d) Stochastic learning

7. A batch mode of training is generally implemented through the ________________ in error calculation

(a) Minimization of median square error
(b) Maximization of median square error
(c) Maximization of mean square error
(d) Minimization of mean square error

8. Command to start matlab fuzzy toolbox is

(a) fis
(b) fuzzy
(c) fuzzybox
(d) fuzzytool

9. Which of the following is not a hybrid system?

(a) Embedded hybrid system
(b) Sequential hybrid system
(c) Auxiliary hybrid system
(d) Parallel hybrid system

10. In which of the following, one technology calls the other technology as subroutine to process or manipulate information needed

(a) Embedded hybrid system
11. Fuzzy – Genetic Hybrid system is a

(a) Fuzzy logic in parallel with the Genetic algorithm
(b) Fuzzy logic controlled Genetic algorithm
(c) Genetic algorithm controlled Fuzzy logic
(d) None of the above

12. In Supervised learning — \( \nu e \) sign is used to signify the fact that if \( \frac{\partial E}{\partial V} > 0 \), then we have to

(a) Increase V
(b) Decrease V
(c) Increase E
(d) Decrease E

13. Both fuzzy logic and artificial neural network are soft computing techniques because,

(a) Both gives precise and accurate results.
(b) Artificial neural network gives accurate result but fuzzy logic does not.
(c) In each, no precise mathematical model of the problem is required.
(d) Fuzzy gives exact result but artificial neural network does not.

14. In supervised learning, training set of data includes

(a) Input
(b) Output
(c) Both input and output
(d) None