

(6 pages)

Reg. No. :

Code No. : 8450

Sub. Code : HCSM 32

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2016.

Third Semester

Computer Science

ARTIFICIAL NEURAL NETWORKS

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The network has no loops is called
(a) Feed forward (b) Feedback
(c) Complete (d) By Pass
2. The speech area _____ concerned with the formulation of sentences
(a) Broca's area (b) Wernicke's area
(c) Wrinkled area (d) None

3. Aplysia is a simple _____ system

(a) Bone (b) Nervous
(c) Blood (d) None

4. Local information is used for learning in _____

(a) Supervised learning
(b) Unsupervised learning
(c) Ill supervised learning
(d) None of the above

5. SRM stands for _____

(a) Structural Risk Minimization
(b) Structural Risk Maximization
(c) Support Risk Minimization
(d) Support Risk Maximization

6. The derivation of a general class of RBFNs from the theory of regularization comes primarily from the work of _____

(a) Poggio (b) Girosi
(c) Both (a) and (b) (d) None



7. _____ are regions of state space to which neighbouring trajectories coverage

- (a) Stability (b) Vectors
(c) Attractors (d) None

8. _____ update where neurons update together

- (a) Synchronous (b) Parallel
(c) Asynchronous (d) None

9. Voronoi quantizer effectively divides the input data space into polyhedral regions called a _____

- (a) Voronoi region (b) Voronoi tessellation
(c) Vector region (d) None

10. $W = -\alpha_s W + \beta_s X$ is _____

- (a) Adaptation Law 1 (b) Adaptation Law 2
(c) Adaptation Law 3 (d) None

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What is multilayer network? Give example.

Or

(b) Explain classical AI and neural networks in detail.

12. (a) Explain linear separability in detail.

Or

(b) What are the learning objectives of TLNs?

13. (a) What is the use of Bayes' theorem?

Or

(b) What is probabilistic interpretation of a neuron discriminant function?

14. (a) Define the terms attractor and stability.

Or

(b) Discuss pocket algorithm.

