

B.Tech. SEM -VII Info. Tech. 2014 Course (CBCS) : SUMMER - 2019

SUBJECT: ELECTIVE -III – NEURAL NETWORK

Day : Tuesday
Date : 14/05/2019

S-2019-2833

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60.

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate full marks.
 - 3) Draw neat labeled diagrams **WHEREVER** necessary.
 - 4) Assume suitable data, if necessary.
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Q.1 Draw the structure of a Biological Neural Network and compare it with Artificial Neural Network. **(10)**

OR

Q.1 What are the different types of learning schemes used in Artificial Neural Network? Explain each of them clearly with suitable example. **(10)**

Q.2 Distinguish between the Feedforward and Feedback Neural Networks. Compare their Input–Output mapping. **(10)**

OR

Q.2 State and prove Perceptron Convergence theorem. **(10)**

Q.3 What is a linear associative network? Explain storage and retrieval algorithm for Associative memory. **(10)**

OR

Q.3 Elaborate Bidirectional Associative Memory (BAM). Draw the architecture of BAM and discuss training algorithm. **(10)**

Q.4 What is X-OR problem? Discuss how it can be overcome. **(10)**

OR

Q.4 Define Stimulated Annealing algorithm and explain its structure in detail. **(10)**

Q.5 Explain the architecture and components of Competitive Learning Neural Network with neat diagram. **(10)**

OR

Q.5 Summarize basic concept behind ART. Explain architecture and operations of ART network in detail. **(10)**

Q.6 Enlist applications of Artificial Neural Networks and explain any two in brief. **(10)**

OR

Q.6 Write in detail about pattern association, pattern classification and pattern recognition in Artificial Neural Network. **(10)**

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