

**B.Tech. SEM -VII Info. Tech. 2014 Course (CBCS) : WINTER - 2018**  
**SUBJECT: ELECTIVE-III – NEURAL NETWORK**

Day : Friday  
Date : 30/11/2018

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

**W-2018-2568**

**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** Define Neural Network. Explain the characteristics of Neural Network along with its advantages. (10)

**OR**

**Q.1** Explain the various models of Artificial Neural Networks with their corresponding advantages and disadvantages. (10)

**Q.2** Draw and explain the architecture of a Multilayer Perceptron (MLP) with its operation, advantages and disadvantages. (10)

**OR**

**Q.2** State and explain Back-Propagation algorithm and its limitations. How these limitations can be overcome. (10)

**Q.3** With the help of suitable example, explain Associative Memory and its types. (10)

**OR**

**Q.3** Explain how weights are computed in Bidirectional Associative Memory and also show how the associations are stored and retrieved. (10)

**Q.4** Illustrate Stochastic network? How are they different from other types of networks? (10)

**OR**

**Q.4** With a neat sketch architectural diagram explain the application procedure used in Boltzmann machine. What are the limitations of Boltzmann learning? (10)

**Q.5** Describe unsupervised learning of Clusters in detail. (10)

**OR**

**Q.5** What is Self- Organizing network? Explain SOM algorithm with suitable example. (10)

**Q.6** Write a short note on: Expert System for diagnosis of Medical diseases. (10)

**OR**

**Q.6** Discuss the significance of Neural networks in the NET talk application in detail. (10)

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