

**EIC-240**  
**B.E. VIII<sup>th</sup> Semester (CGPA) Examination, 2020**  
**CSE**  
**Paper - CS - 803**  
**Elective-III (Neural Networks)**

**[Maximum Marks : 60]**

**Note :-** All questions from each section carry equal marks. All questions are compulsory and answer limit are approximately 250 words. Start the answer of each section from new page. Maximum limit of pages of answer booklet are approximately 16 pages. Answer should be written by the student in his/her own handwriting mandatory. The first page of answersheet should be download by the student from university website [www.bubhopal.ac.in](http://www.bubhopal.ac.in) is mandatory.

1. (a) Multi-Layer Neural network  
(b) Linear sperability  
(c) Boltmann method
  
2. (a) Differentiate between biological and Artificial neural network.  
(b) Explain the different neural network architecture.
  
3. (a) Explain how boltzmann machine can be used to overcome the problems associated with hopfield nets ?  
Describe one application of Botlzmann machine.  
(b) Explain the working and application of kohonen's self organizing feature map.
  
4. (a) Explain the basic architecture of ART.  
(b) Explain ART classification operation.
  
5. (a) Define optical neural network and give its advantages and disadvantages.  
(b) Explain cognition and non-cognition in detail.