Roll No.

Total No. of Pages: 02

**Total No. of Questions: 18** 

B.Tech.(CSE) (2012 to 2017 E-III) (Sem.-7,8) SOFT COMPUTING

Subject Code: BTCS-911

M.Code: 71903

Time: 3 Hrs. Max. Marks: 60

#### **INSTRUCTION TO CANDIDATES:**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

## **SECTION-A**

# Write briefly:

- 1. Explain various constituents of soft computing.
- 2. What is hard computing?
- 3. What is a neural network?
- 4. What is pattern recognition system?
- 5. Explain perceptron learning.
- 6. What is adaptive resonance architecture?
- 7. What is a regression tree?
- 8. Explain intelligence with respect to flocks of birds.
- 9. Explain fuzzy relations.
- 10. Define Soft Computing.

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## **SECTION-B**

- 11. Explain building block hypothesis and schema theorem.
- 12. Differentiate between 'supervised learning' and 'unsupervised learning'.
- 13. Explain various applications of neural networks in soft computing.
- 14. Discuss generation gap with respect to soft computing.
- 15. Explain swarm intelligence in detail.

### **SECTION-C**

- 16. Explain the different learning rules with examples.
- 17. What is the use of genetic algorithm?
- 18. Explain in detail particle swarm optimization.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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