

**Total No. of Pages : 01**

**Total No. of Questions : 08**

**M.Tech. (CSE Engg.) (2018 Batch) (Sem.-2)**

# SOFT COMPUTING

**Subject Code : MTCS-202-18**

**M.Code : 76056**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

- 1. Attempt any FIVE questions out of EIGHT questions.**  
**2. Each question carries TWELVE marks.**

- Q1 a) What is soft computing? Give its applications with example.  
b) What is the difference between computational intelligence and artificial intelligence?
- Q2 a) Discuss the basic concept of Fuzzy set theory.  
b) Explain the Insertion, Union and Complement Fuzzy set operations.
- Q3 a) What is fuzzy reasoning in artificial intelligence?  
b) Explain the Inference Mechanism in Fuzzy rule based system.
- Q4 a) Write the steps of training the Artificial Neural Networks.  
b) Discuss recent advances in neural networks.
- Q5 a) How can a neural network be used for supervised learning?  
b) Write a short note on Adaptive resonance architecture.
- Q6 a) Write the role of machine learning in knowledge acquisition.  
b) Discuss the basic principle of Genetic Algorithm? How this method can be used in Machine Learning?
- Q7 a) Write a Python Program to find factorial of given number?  
b) Give the steps of using MATLAB to find the solutions using mathematical notation.
- Q8 What is the role of Deep Learning in computer science? What are the prerequisites for starting out in Deep Learning?

**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.**