



**Parul<sup>®</sup>**  
**University**

**Parul Institute of Technology, Limda, Vadodara**

**Subject:** Artificial Intelligence (303105307)

**Course:** B.Tech

**Year & Sem:** B.Tech-III & Sem-V

**Branch:** Artificial Intelligence

## **Assignment# 3**

1. Explain different types of Artificial Neural Network
2. Discuss two applications of fuzzy logic in real-world problems

### **Long Question:**

1. Define Non Monotonic Reasoning and explain it with a suitable example.
2. Explain Architecture of an expert system. What are the examples of expert system?
3. Explain steps of Natural Language Processing?
4. What are the key differences between Matplotlib and Seaborn in Python for data visualization, and in what scenarios would you choose one library over the other?
5. What are fuzzy set operations?
6. Explain membership functions in fuzzy logic.
7. Explain spell checking in NLP systems.
8. Explain steps of Natural Language Processing?
9. Provide two case studies on expert systems, highlighting their architecture, knowledge representation, and applications.