

**Question Pattern**  
**Semester Final Fall 2022**  
**CSE 4237 - Soft Computing**

Topics	Sets
<ul style="list-style-type: none"><li>• Hidden Markov Model</li><li>• Viterbi Algorithm</li><li>• RNN</li><li>• LSTM</li><li>• GRU</li></ul>	1
<ul style="list-style-type: none"><li>• Word Embedding</li><li>• BoW</li><li>• TF-IDF</li><li>• Attention Mechanism</li><li>• Vectorization of Neural Networks</li></ul>	1.5/2
<ul style="list-style-type: none"><li>• Activation Function</li><li>• Logistic Regression</li><li>• Optimizer</li><li>• Cross Entropy Loss</li><li>• Gradient Descent</li><li>• Information Theory</li></ul>	2
<ul style="list-style-type: none"><li>• CNN</li><li>• Parameter Calculation</li><li>• Parameter vs Hyperparameter</li><li>• Genetic Algorithm</li><li>• Traveling Salesman Problem</li></ul>	1
<ul style="list-style-type: none"><li>• Fuzzy Basics</li><li>• Fuzzy Membership Function</li><li>• Fuzzy Addition</li><li>• Fuzzy Composition</li><li>• Neuro-Fuzzy System</li></ul>	1/1.5

**Instructions:**

- You have to answer 5 sets out of 7. Each set will have 3 questions: CO1, CO2, CO3.