

Assignment - 2 ODD Semester 2020-21

Subject Code: RCS-702 Subject Name: Artificial intelligence

Year: 4Th Branch: Computer Science & Engineering

[Time: 60 minutes] [Total Marks: 20]

C403.1. Describe fundamental understanding of history of artificial intelligence and its foundation. (K1,K2)

C403.2 Classify various intelligent agents and their structure. (K1, K2)

C403.3. Design innovative solution using basic principles of AI in problem solving, knowledge representation, and learning. (K5, K6)

C403.4. Demonstrate proficiency in applying scientific method to models of machine learning. (K3, K4)

C403.5. Examine pattern recognition system, various estimation methods and classification techniques. (K3, K4)

SECTION-A

Attempt any two questions (In one word to approx. 50 words)

 $(3 \times 2 = 6)$

- 1. State the difference between Statistical and Structural Pattern Recognition.
- 2. Define design principles and application of Pattern Recognition.
- 3. Explain Naïve Bayes classifier
- 4. Relate Machine Learning and Pattern Recognition with help of an example.

SECTION-B

Attempt any two questions (In 50 words to approx. 250 words)

 $(7 \times 2 = 14)$

- 1. Describe the concept of Support Vector Machine.
- 2. Elaborate K means clustering with proper diagrams.
- **3.** Contrast the relation between 2 types of parameter estimation methods in detail using an example.
- 4. Explain Nearest Neighbor Rule in details.