

Assignment - 1 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 Frames and Scripts.
- 2. Define Utility Theory with reference to probability.
- 3. Explain Bayes Theorem.
- 4. Define Semantic Network 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 Hidden Markov Model in detail.
- 2. Elaborate First Order Predicate Logic and why it is better than propositional logic? "The car Tom is driving is blue"; "The sky is blue"; "The cover of this book is blue". Represent the given statement in the predicate logic.
- 3. Contrast the relation between Unification and Resolution using an example.
- 4. Explain usage of Bayesian Network in details.