

SHORT QUESTION FOR ASSIGNMENT-1

- Q. What is machine learning? How many types of learning are there?
- Q. List the characteristics of intelligence,
- Q. What is "overfitting"? How do we overcome overfitting?
- Q. Explain the statistical nature of the learning process.
- Q. Represent the following sentence in the Predicate form "AI the children like sweets".
- Q. What do you understand by Natural Language Processing?
- Q. What is artificial intelligence? How it is different than general intelligence?
- Q. Describe the role of computer vision in artificial intelligence.
- Q. Write four properties a good system should possess for the knowledge representation in a particular domain.
- Q. Explain Maximum likelihood hypothesis and Maximum a posterior.
- Q. Name the elements of an agent.
- Q. Summarize the factors that make up rationality.
- Q. What do you infer from hill-climbing search algorithm?
- Q. Compare propositional logic and predicate logic
- Q. Justify the usage of universal and existential quantifier with an example.
- Q. Give the heuristic function for shortest path problem.
- Q. Which algorithm is more similar to backward chaining algorithm? Write its algorithm
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- Q. What do you mean by hybrid Bayesian network?
- Q. Which value is assigned to alpha and beta in the alpha-beta pruning?
- Q. List few decision tree algorithms.

What is meant by the term Artificial Intelligence? How it is different from natural intelligence?

Discuss Branch-and-bound search algorithm.

Differentiate between local search and global search.

Transform the following formula to Prenex Normal form—

$$\forall x: \forall y: (\exists z: P(x, z) \cap P(y, z)) \rightarrow \exists u: Q(x, y, u)$$

Define forward chaining and backward chaining with example.

Explain in brief the concept of reinforcement learning.

Write a short note on Support Vector Machine.