Unit – 1 Questions

Q.1 What is machine learning > Discuss some applications of machine learning

Q.2. What is well posed learning problem. Discuss any three well posed learning problems describing their task, performance and experience.

Q.3 Explain the steps in designing a learning system for checkers game

Q.4 What are the different issues in machine learning

Q.5. Write Find-S algorithm and Find maximally specific hypothesis for the given training examples

Size	Color	Shape	Class
Big	Red	Circle	No
Small	Red	Triangle	No
Small	Red	Circle	Yes
Big	Blue	Circle	No
Small	Blue	Circle	Yes

Q.7 Write candidate elimination algorithm

Q.8 Find the maximally general hypothesis and maximally specific hypothesis for the training examples given in the table using the candidate elimination algorithm.

Origin	Manufacturer	Color	Decade	Type	Example Type
Japan	Honda	Blue	1980	Economy	Positive
Japan	Toyota	Green	1970	Sports	Negative
Japan	Toyota	Blue	1990	Economy	Positive
USA	Chrysler	Red	1980	Economy	Negative
Japan	Honda	White	1980	Economy	Positive
Japan	Toyota	Green	1980	Economy	Positive
Japan	Honda	Red	1990	Economy	Negative

Q.9 Define the following

Concept learning

Consistent hypothesis

Version Space

Q.10. Explain Decision Tree Algorithms with suitable example.

Q.11. Explain inductive bias, overfitting and underfitting of ID3 algorithm of decision tree