

Q2) Discuss why you think the problem of machines "learning" is so difficult. List and discuss negative effects on society of the development of artificial intelligence techniques.

Q3) What do you mean by production system? Describe how a production system can be used to convert a decimal number into a binary one. Illustrate the operation by converting 141.

Q4) What is propositional calculus? How do you use inference rules to produce Predicate calculus expressions? Explain with the help of an example.

Q5) What is natural language processing? Discuss various stochastic tools for language processing.

Q6) Discuss various strategies for state space search. How do you use the state space to represent reasoning with the predicate calculus? Explain with the help of an example.

Q7) Write short notes on the following:

- (a) Semantic Analysis
- (b) Rule-Based Expert Systems.

