[Time: 3 Hours]   **[Marks:75]**

Please check whether you have got the right question paper.

N.B: 1.   **All** questions are **compulsory**
2.   **Answer to the two sections must be written in same answer book and should be submitted together**
3.   **Write answer to same questions together**
4.   **Mixing of sub-questions is not allowed.**

SECTION-I

Q.1	(A) Write a short note on agents that are artificially intelligent.	06
	(B) Write a short note on "First order Logic"	07

OR

Q.1	(A) Define Artificial intelligent. Mention its applications in academics.	06
	(B) Explain the structure of an intelligent agent?	07

Q.2	(A) What is an expert system shell?	06
	(B) What are quantifiers in Predicate calculus? Explain with example.	07

OR

Q.2	(A) Explain 8 queen problem with its possible solution diagram.	06
	(B) Write a note on Best first Search in context to A* algorithm.	07

Q.3	(A) Write a short note on "The Wumpus World environment".	06
	(B) State and explain unsupervised learning with examples.	06

OR

Q.3	(A) Explain knowledge acquisition in brief.	06
	(B) Write a note on Thinking Humanly – a cognitive model approach.	06

SECTION-II

Q.4	(A) Explain RBF network.	06
	(B) What is a Perceptron? Mention about perceptron convergence theorem.	07

OR

Q.4	(A) Write a note on Knowledge representation.	06
	(B) Write a note on McCulloch and Pitts neuron.	07

Q.5	(A) Explain XOR problem in Neural networks.	06
	(B) Explain Fuzzy Logic with one examples.	06

OR

Q.5	(A) Write a note on Feature detection in neural network	06
	(B) State any 2 signal functions and explain.	06

Q.6	(A) Explain Baye's theorem.	06
	(B) Why do we use diffuzzification?	06

OR

Q.6	(A) Explain any 2 architectures of neural networks.	06
	(B) Explain the least mean square method.	06