Code No: **V3226** **R07** **Set No. 1**

III B.Tech II Semester Supplementary Examinations, April - 2017

ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS

(Computer Science Engineering)

Time: 3 hours **Maximum Marks: 80**

Answer any FIVE Questions

All Questions carry equal marks

*****

1	a)	Make comparison of model-based reflex agents and simple reflex agents. Quote suitable examples.	[8M]
	b)	Explain the properties of task environments.	[8M]
2	a)	How to measure the performance of problem solving system and solution? Explain with examples.	[8M]
	b)	What is the significance of alpha-beta pruning in minimax algorithm used for game playing? Discuss in detail.	[8M]
3	a)	Write and explain the DPLL algorithm for checking satisfiability of a sentence in propositional logic.	[8M]
	b)	Briefly explain the syntax and semantics of propositional logic.	[8M]
4	a)	Discuss in detail efficient forward chaining and differentiate it from incremental forward chaining.	[8M]
	b)	State and explain the resolution inference rule.	[8M]
5	a)	Make a comparison of the performance of computer and biological neural networks.	[8M]
	b)	Explain M.Culloch Pitts model of a neuron with a neat sketch.	[8M]
6	a)	What is pattern association problem? How to solve it?	[8M]
	b)	Discuss the gradient descent algorithm for pattern mapping tasks.	[8M]
7	a)	Explain the operations of a stochastic networks	[8M]
	b)	Describe various issues in implementation of Boltzmann learning.	[8M]
8	a)	What are the components of a competitive learning network? Explain their functionality.	[8M]
	b)	Write a short technical note on associative memory.	[8M]

*****