Seat	No.: .	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY M. E SEMESTER – III • EXAMINATION – WINTER • 2013	
Subject code: 730802 Subject Name: Artificial Intelligence			
		0.30 am – 01.00 pm Total Marks: 70 tions:	
11150		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	What is Artificial Intelligence? List the application areas of AI. What is Crypt Arithmetic? Explain the applications of Crypt Arithmetic in Artificial Intelligence.	7
Q.2	(a) (b)	Describe state space search technique. Explain A* algorithm with example. OR	7
	(b)	Explain AO* algorithm with example.	7
Q.3	(a) (b)	Explain alpha-beta pruning with example. Explain simulated Annealing with example. OR	7
Q.3	(a) (b)	Describe meaning of knowledge acquisition and knowledge representation. Explain Minimax Algorithm in detail.	7
Q.4	(a)	What is neural Network? Explain the applications of Artificial Neural Network in	7
	(b)	Computer Integrated Manufacturing. What is Natural Language Processing? Explain applications of NLP in AI. OR	7
Q.4	(a) (b)	With suitable example explain predicate logic. Explain fuzzy sets and differentiate between fuzzy sets and crisp sets with example.	7
Q.5	(a) (b)	Explain with suitable example Recursion based search. Explain expert system architecture. Discuss characteristic features of the same. OR	7
Q.5	(a)	Differentiate Rule based and Case based Expert System with advantages and limitations.	7

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(b) Explain production rules for water jug problem.