

[M19CST1103]

I M. Tech I Semester (R19) Regular Examinations
Artificial Intelligence
Branch: Computer Science and Engineering
MODEL QUESTION PAPER

TIME: 3 Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**

All questions carry equal marks

			CO	KL	M
		UNIT - I			
1.	a).	Explain the various application areas of AI	1	2	7
	b).	Write the AO* algorithm in detail	1	2	8
		OR			
2.	a).	Discuss various heuristic search techniques	1	2	8
	b).	Explain the various problem characteristics of AI	1	2	7
		UNIT - II			
3.	a).	Check the given propositional calculus expressions are equivalent or not ($P \rightarrow Q \rightarrow R$) AND ($P \rightarrow Q \wedge Q \rightarrow R$)	2	3	9
	b).	Prove the given expression is tautology ($P \wedge Q \wedge R$) \vee $\sim P$	2	3	6
		OR			
4.	a).	Explain the unification algorithm with example	2	2	6
	b).	Discuss about resolution refutation in propositional logic	2	2	9
		UNIT - III		3	8
5.	a).	Represent the knowledge using semantic network for the mobile device	3	3	7
	b).	Construct the script for patient visiting the hospital	3		
		OR			
6.	a).	Draw & explain the components of Expert system architecture	3	2	7
	b).	Discuss about rule based expert system in detail.	3	2	8
		UNIT - IV			
7.	a).	Discuss about Bayesian belief networks in detail	4	2	6
	b).	How can we use Dempster Shafer theory for prediction?	4	3	9

		OR			
8.	a).	What is fuzzy set & list the operations on fuzzy set	4	2	7
	b).	Write about different types of membership functions	4	2	8
		UNIT - V			
9.	a).	How the support vector machines can be used in machine learning?	5	3	9
	b).	Differentiate the supervised & unsupervised learning	5	3	6
		OR			
10.	a).	Design a Perceptron for EX-OR gate logic	5	3	8
	b).	Draw the structure of multi layered forward networks	5	2	7

CO: Course Outcome
KL: Knowledge Level
M: Marks

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