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Semester IV (B.Tech)

Er. No. 21183532

Academic Year: 2022-23

Jaypee University of Engineering & Technology, Guna

T-1(Even Semester 2023)

18B11CI415/14B11CI711 – ARTIFICIAL INTELLIGENCE & APPLICATIONS

Maximum Duration: 1 Hour

Maximum Marks: 15

Notes:

1. This question paper has four questions.
2. Write relevant answers only.
3. Do not write anything on question paper (Except your Er. No.).
4. **Answer the questions in serial order.**

		Marks	CO No.
Q1.	On the Basis of 'Human-Like approach' and 'Rationality' compare and contrast between Cognitive science Approach & Laws of thought Approach also Turing test Approach & Rational agent Approach.	**[03]**	**CO2**
Q2.	Draw the AND-OR tree/graph structure to represent the following facts: Improve enjoyment of life, Improve standard of living, Work less hard, Provide for old age, Save money, Earn more money, Go on strike, Improve productivity.	**[03]**	**CO2**
Q3.	If all the hard constraints are linear and some are inequalities, but the objective function is quadratic, the problem is a quadratic programming problem. It is one type of nonlinear programming. By which method this problem can be solved? You have to typically name the method and justify it.	**[03]**	**CO3**
Q4.	For the belief system shown below in (Fig1), and the corresponding conditional probability tables (Fig2) compute: P(AE'), P(A'E'), P(JB), P(J | B), P(MB), P(M | B).	**[06]**	**CO3**

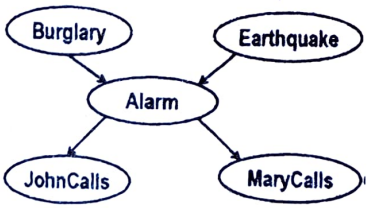

Fig 1.

B	E	P(A)
T	T	0.95
T	F	0.95
F	T	0.29
F	F	0.001

A	P(J)
T	0.90
F	0.05

A	P(M)
T	0.70
F	0.01

P(E)
0.002

P(B)
0.001

Fig 2.