15CS562

(08 Marks)

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Fifth Semester B.E. Degree Examination, July/August 2021 Artificial Intelligence

Time: 3 hrs

Max. Marks: 80

Note: Answer any FIVE full questions. 1 a. Discuss Program 1 and Program 2 with respect to Tic-Tac-toe game. b. A water Jug problem states "You are given two jugs, a 4-gallon one and a 3-gallon one. Neither has any measuring markers on it. There is a pump that can be used to fill the jugs with water. How can you get exaetly 2 gallons of water into the 4-gallon jug"? (i) Write down the production rules for the above problem. (ii) Write any one solution to the above problem. (iii) Write any one solution to the above problem. (iii) Write any one solution to the above problem. (iii) Explain simple hill climbing and steepest ascent hill climbing algorithm. (iii) Explain simple hill climbing and steepest ascent hill climbing algorithm. (iv) Marcus was a man. (iv) Marcus was a Pompeian. (iv) All Pompeians were Roman. (iv) Caesar was a ruler. (vi) All Romans were either loyal to Caesar or hated him. (vii) Everyone is loyal to Someone. (viii) Marcus tried to assassinate rules they are loyal to. (viii) Marcus tried to assassinate rules they are loyal to. (viii) Marcus tried to assassinate Caesar. 4 a. Write an algorithm to convert well-formed formulas (wff's) into clause form. (iv) Write a short note on procedural knowledge and declarative knowledge. 5 a. Discuss the concept of uncertainty with the help of ABC murder story. (iv) Explain Baye's theorem. 6 a. Write an algorithm for property inheritance. (iv) Marks) 5 b. Explain Baye's theorem for a given problem. Problem: Marie's marriage is tomorrow. (iv) When it dearn a gar it has rained only 5 days. (iv) The weatherman has predicted rain for tomorrow. (iv) When it doesn't rain, the weatherman correctly forecast rain 90% of the time. The question: What is the probability that will rain on the day of Marie's wedding? (iv) When it doesn't rain, the weatherman incorrectly forecasts rain 10% of the time. The question: What is the probability that will rain on the day of Marie's wedding? (iv) When it doesn't rain, the weatherman correctly forec	Time: 3 hrs.				
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Mention any four major problems with respect to current expert system.

Discuss various learning strategies.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8=50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

10