

Sardar Vallabhbhai National Institute Of Technology, Surat
Computer Science and Engineering Department
B.Tech III (Computer Science and Engineering) - VI Semester
CS304 - Artificial Intelligence
Practical Exam April-2023

Date: 28th April 2023

Time: 2:00 PM to 4:00 PM

Marks:15

Sr. No	Problem Statement	Marks
1.	<p>Domains Disease -> indication = symbol Patient -> name = string Patient(P_Id,name,address(building_name,city,zipcode),[treatment(doctor_code, disease)]).</p> <p>Predicates symptom(name,indication) hypothesis(name,disease) response(char) Where, <ul style="list-style-type: none"> indication = fever, rash, headache, runny_nose, conjunctivitis, cough, name= Patient's namebody_ache, chills, sore_throat, sneezing </p> <p>Disease are as follow: 1. Flu if patient has fever, headache, body_ache, conjunctivitis, chills, sore_throat, runny_nose, cough 2. Common cold if patient has headache, sneezing, sore_throat, runny_nose, chills 3. Chicken pox if patient has fever, chills, body_ache, rash 4. Measles if patient has cough, sneezing, runny_nose</p> <p>Clauses <input type="checkbox"/> For 3 patients, enter symptoms. Make sure every patient should be having more than one disease for data purposes. <input type="checkbox"/> Enter that 3 patients details (P_Id,Name, Address, treatment)</p> <p>Example: symptom(Patient's name,fever) :- write(\"Does \",Patient,\" have a fever (y/n) ?\"), response(Reply), Reply='y'.</p>	10

	<p>Find the results for following questions using PROLOG program:</p> <ol style="list-style-type: none"> 1. Find the total number of diseases for each patient. 2. Find the name and zip code of each patient. 3. Write P_Id and name of all patients staying in Delhi. 4. List name of all patients treated by doctor D1. 5. List roll no. of all patients suffering from Common cold 6. List building_name and city_code for all patients in the given format (format: [(building_name, citycode)]). 7. List all doctors for each given patient. 	
2.	Implement Traveling Salesman problem using Breadth First Search algorithms.	5