	Semester: January 2025-April 2025 Examination: In-Semester Examination		Duration : 1:15hrs
Maximum Marks: 30			
Programme code: 01		Class: TY	Semester: VI (SVU 2020)
Programme: Computer Engineering			
Institute/School/ Department: K. J. Somaiya School of Engineering		Name of the department: Computer Engineering	
Course Code: 2UCC603	Name of the Course: Artificial Intelligence		

Q No.		Max. Marks
Q1	What is the "thinking rationally" approach of Artificial Intelligence? Why it is not accepted as the rational agent approach?	05
	OR	
	Discuss any two applications of AI in healthcare domain	05
Q2	Consider a machine like Upliance AI- an AI Cooking Assistant that offers a diverse range of recipes- rice cooking, easy preparation of dough and dosa batter, vegetable chopping, etc. Recipes include South Indian, North Indian, Asian, Smoothies, Mocktails, etc. One has to simply follow the given video instructions for the recipe and add ingredients in raw form. The machine cooks the desired dish entirely. Machine has a display for showing videos, chat assistance and ingredient weighing scale to assist the cooking process. Made for Indian homes	
	A. Write PEAS analysis for such a machine.	05
	B. Suggest and justify appropriate agent architecture for designing this solution program. Draw the block diagram(s) and give example contents for all blocks in the diagram.	10
Q3	Consider the following set of statements. Convert them to first order logic.	10
	a. The full-time working employees are eligible for health benefits. b. The employees, who are eligible for benefits, receive health insurance. c. Sarah is a full-time employee. d. John is a part-time employee. e. Michael is a manager and is a full-time employee. **Prove : John does not receive health insurance using backward chaining** **OR** **Prove : John does not receive health insurance using Resolution** *Note:* a. Add additional knowledge if needed, convert in FOL and/or CNF as needed before using it. b. Clearly mention all facts and inference rules used for proof.	