SRM Institute of Science and Technology
College of Engineering and Technology
School of Computing

Mode of Exam
OFFLINE
SET C

DEPARTMENT OF COMPUTING TECHNOLOGIES

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

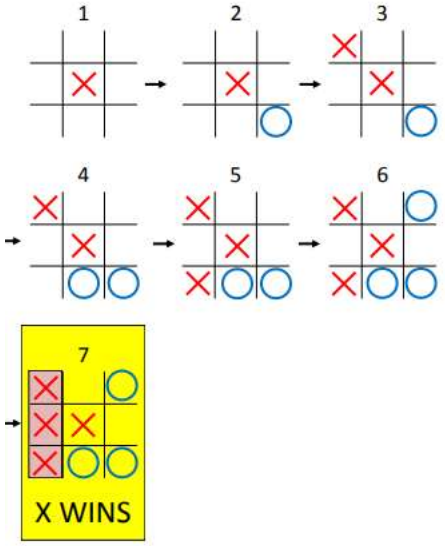
Academic Year: 2023-24 (EVEN)

Test: CLAT-1 **Date: 22nd Feb 2024**
Course Code & Title: 21CSC206T – Artificial Intelligence **Duration:** 1 period
Year & Sem: II /4th **Max. Marks:** 25

Course Articulation Matrix:

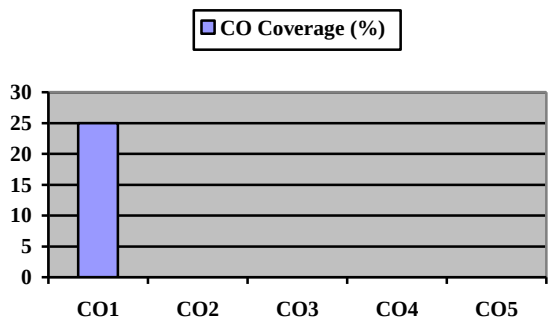
	PO												PSO		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	2	3
CO1	**1**	**2**	-	-	-	-	-	-	-	-	-	-	-	-	-
CO2	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
CO3	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
CO4	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	3	2	3	-	-	-	-	-	2	-	-	-	-	-	-

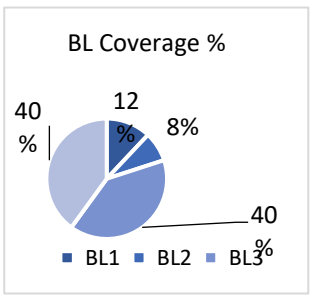
Part – A (5 x 1 = 5 Marks) Instructions: Answer ALL						
Q. No	**Question**	**Marks**	**BL**	**CO**	**PO**	**PI Code**
1	The question "Can machines think?" was first proposed by ---- .(**Alan turing)**	1	1	1	1	1.6.1
2	Cost function quantifies the distance from the --------- to the goal state. **(current state)**	1	1	1	1	1.6.1
3	Match the following: problem criterion on left among its definition given on the right. 1. Compactness- a) No False positive and False negative 2. Soundness- b) No loss of information - c) Restrict and define boundaries clearly **(1-c, 2-a)**	1	1	1	1	1.6.1
4	Which of the following sentences is TRUE pertaining to evidence of machine intelligence in Turing test? **a) Acting humanly** b) Thinking humanly c) Acting rationally d) Thinking rationally	1	2	1	1	1.6.1
5	Which of the following sentences is FALSE under state space representation? a) Siri, Alexa, and Google Assistant are examples of virtual personal assistants b) the embodiment of human intellectual capabilities within a computer is strong AI **c) Virtual Personal Assistants is a representation of strong AI** d) Expert Systems simulates the thought processes of human beings	1	2	1	1	1.6.1
Part – B (1 x 10 = 10 Marks)						
6	Briefly discuss the ways in which you make any observable problem in to a partially or non -observable one with justification. **(1.Vacuum cleaner -no sensor (non observable) and malfunction or local sensor makes it partially observable** **2. Manual to self-driving mode of vehicle– the environment is partially observable because what's around the corner is not known)**	10	3	1	2	2.7.1
Part – C (1 x 10 = 10 Marks) Instructions: Answer any 1						
7	Imagine you are a salesperson tasked with visiting a set of cities to promote your products. You have a list of 6 cities (A, B, C, D, E, F), and you need to find the shortest possible route that visits each city exactly once and returns to your starting point.	10	3,4	1	2	2.8.1

	The distances between the cities are as follows: A to B: 10 units A to C: 15 units A to D: 20 units A to E: 25 units A to F: 30 units B to C: 35 units B to D: 40 units B to E: 45 units B to F: 50 units C to D: 55 units C to E: 60 units C to F: 65 units D to E: 70 units D to F: 75 units E to F: 80 units The resulting shortest route is: A -> B -> C -> D -> E -> F -> A. The total distance for this route is: 10 + 35 + 55 + 70 + 80 + 30 = 280 units.					
8	To win a game of Tic Tac Toe, your strategy will depend on who will play first, you or your opponent. What are the possible steps in state space for you to win or draw a game when you are playing first placing X in center? (Note: Imagine you are player with cross- "X") 	10	3,4	1	2	2.8.1

***Performance Indicators are available separately for Computer Science and Engineering in AICTE examination reforms policy.**

Course Outcome (CO) and Bloom's level (BL) Coverage in Questions





Approved by the Audit Professor/Course Coordinator