CBCS SCHEME

USN | | | | | | | | | | |

BEC515A

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Intelligent Systems and Machine Learning Algorithms

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the history of AI.	10	L2	CO1
	b.	Define AI. Explain the foundation of AI in detail.	10	L2	CO1
		OR			
Q.2	a.	Explain properties of task environment.	10	L2	CO1
	b.	Differentiate between simplex reflex agents and model based reflex agents.	10	L2	CO1
		Module – 2			
Q.3	a.	List and explain the components required to define a problem.	10	L2	CO2
	b.	Explain goal formulation and problem formulation with examples.	10	L2	CO2
		OR			
Q.4	a.	Explain Breadth First Search and Depth First Search algorithms with an example.	10	L3	CO2
	b.	Illustrate different methods of evaluating an algorithm's performance.	10	L2	CO2
		Module – 3			
Q.5	a.	Describe greedy best first search as an informed search strategy.	10	L2	CO2
	b.	Explain knowledge based agent with a generic knowledge based agent program.	10	L2	CO3
		OR			
Q.6	a.	Describe syntax and semantics with respect to propositional logic.	10	L2	CO3
	b.	Explain Wumpus World with respect to artificial intelligence.	10	L2	CO3
		Module – 4			
Q.7	a.	What is Machine Learning? Explain with specific examples.	06	L2	CO4
	b.	Explain perspectives and issues in Machine Learning.	04	L2	CO4
	c.	Explain types of Machine Learning System.	10	L2	CO4
		OR			
Q.8	a.	Describe the main challenges of Machine Learning.	10	L2	CO4
	b.	Explain: (i) Find S algorithm (ii) Candidate elimination algorithm	10	L2	CO4
		Module – 5			
Q.9	a.	Explain working with Real data and Get the data.	10	L2	CO5
	b.	Write a note on Launch, Monitor and Maintain your system.	10	L2	CO5
		OR			
Q.10	a.	Describe the steps involved in preparing the data for machine learning model.	10	L2	CO5
	b.	Explain MNIST with respect to Machine Learning.	10	L2	CO5

* * * * *

CMR INSTITUTE OF TECHNOLOGY CMR BANGALORE
CMRIT LIBRARY BANGALORE - 560 037