Course Code: 24BC3T09

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

II - BCA I-Semester Supplementary Examinations (BR24),May - 2026

ARTIFICIAL INTELLIGENCE (BCA)

Time: 3 hours | Max. Marks: 70

Question Paper consists of Part-A and Part-B
*Answer **ALL** the question in **Part-A** and**Part-B***

PART–A (10X2 = 20M)

		Marks	CO	BL
1. a)	What is artificial intelligence (AI)?	(2M)	CO 1	BL 1
b)	Summarize the intelligent agent.	(2M)	CO 1	BL 2
c)	What is search in AI?	(2M)	CO 2	BL 1
d)	Define uninformed search.	(2M)	CO 2	BL 1
e)	List the knowledge representation issues.	(2M)	CO 3	BL 1
f)	Why do we need logic programming?	(2M)	CO 3	BL 1
g)	Outline the first order logic (FOL).	(2M)	CO 4	BL2
h)	Compare the propositional and first order logic (any two point).	(2M)	CO 4	BL 2
i)	What is backward chaining?	(2M)	CO 5	BL 1
j)	Define inductive learning.	(2M)	CO 5	BL 1

PART–B (5X10 = 50M)

2a.	Explain the foundations and history of artificial intelligence.	(5M)	CO 1	BL2
b.	Illustrate the foundations of artificial intelligence.	(5M)		
	(OR)			
3.	Elaborate the concept of rationality in intelligent agents.	(10M)	CO 1	BL6
4a.	Explain the uninformed search strategies for BFSwith algorithm.	(5M)	CO 2	BL2
b.	Illustrate the heuristic search and its importance.	(5M)		
	(OR)			
5a.	List the advantages and limitations of hill climbing algorithm.	(5M)	CO 2	BL4
b.	Analyze the A* search algorithm.	(5M)		
6a.	Explain the knowledge representation issues in AI.	(5M)	CO 3	BL5
b.	Explain the predicate logic and logic programming.	(5M)		
	(OR)			
7.	Discuss in detail about semantic networks and frames with examples.	(10M)	CO 3	BL6
8.	Explain the syntax and semantics of first order logic.	(10M)	CO 4	BL5
	(OR)			
9.	Analyze the forward chaining in first order logic.	(10M)	CO 4	BL4
10a	Explain the backward chaining and resolution in detail.	(5M)	CO 5	BL2
b.	Illustrate the inductive learning.	(5M)		
	(OR)			
11.	Discuss in detail about reinforcement learning architecture with example.	(10M)	CO 5	BL6

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