PRN No.					

PAPER CODE	U313 - 211 - ESIE

December 2023 (ENDSEM) EXAM
TY.BTech (SEMESTER - I)

COURSE NAME: Artificial Intelligence   Branch: AI&DS   **COURSE CODE: ADUA31201**
(PATTERN 2020)

Time: [1Hr. 30 Min]   [Max. Marks: 40]

(*) Instructions to candidates:
 1) **Figures to the right indicate full marks.**
 2) **Use of scientific calculator is allowed**
 3) **Use suitable data wherever required**
 4) **All questions are compulsory. Solve any one sub question from Question 3 and any two sub questions each from Questions 4,5 and 6 respectively.**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Explain the concept of discrete and continuous environments in the context of AI applications.	[2]	CO1	Understanding
Q.2	a) Formulate the 8-queens as a problem?	[2]	CO2	Applying
Q.3	a) Explain Simulated Annealing Heuristic Search with example?	[6]	CO3	Understanding
	b) Solve the following cryptarithmetic problem as CSP Cross + Roads -------------- Danger	[6]	CO3	Evaluate
Q.4	a) Explain different features of hill climbing with examples?	[5]	CO4	Remembering
	b) Compare and contrast Steepest Ascent Hill climbing and Stochastic Hill Climbing.	[5]	CO4	Analysis
	c) Explain how to solve Problems with Hill Climbing in AI?	[5]	CO4	Understanding
Q.5	a) What is production system? Enlist its features & classes with examples?	[5]	CO5	Understanding
	b) Explain Knowledge inference in detail?	[5]	CO5	Understanding
	c) Explain Dempster Shafer Theory (DST) ?	[5]	CO5	Remembering

Q.6	a) Explain Block World Problem in detail?	[5]	CO6	Understanding
	b) Draw & explain Components of learning System?	[5]	CO6	Remembering
	c) Write a short Note on Reinforcement learning & Adaptive Learning.	[5]	CO6	Understanding