Semester IV (B.Tech)

Jaypee University of Engineering &Technology, Guna
T-1(Even Semester 2022)
14B11CI711–Artificial Intelligence & Application

Maximum Duration: 1Hour

Maximum Marks: 15

Notes:
1. This question paper has 4 questions.
2. Write relevant answers only.
3. Do not write anything on question paper.
4. Kindly answer the questions in serial order.

		Marks
Q1.	Compare and contrast the four goals of Artificial Intelligence.	[03]

Q2. The initial and goal configuration of the 8 puzzle problem is as shown [04]
below. Compute and show all the possible heuristics for the following.

1	2	3
7	8	4
6		5

Initial State

1	2	3
8		4
7	6	5

Goal State

Q3. Draw all possible state transitions in the Towers of Hanoi puzzle with 3 [04]
disks and also mention the shortest solution.

Q4. Describe backward chaining. A Rule base contains the following Rule set: [04]
Rule 1: If A and C Then F
Rule 2: If A and E Then G
Rule 3: If B Then E
Rule 4: If G Then D
Prove using backward chaining the following condition
If A and B true Then D is true