

JAMIA HAMDARD
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF ENGINEERING SCIENCE & TECHNOLOGY

Artificial Intelligence - MCA PE111
M.C.A 2nd semester 2023 (BACKLOG)

New Delhi-110062

— **Duration: 3 hours.**

Max. Marks : 75

Section A (5*7 =35)

Attempt all Questions

Q. No.	Questions	Marks	CO	BL
Q1.	Discuss heuristic search algorithm, Discuss with the help of example that A* algorithm is heuristic search algorithm.	5	CO1	BL5
Q2.	Discuss reinforcement learning in detail with the help of example.	5	CO2	BL4
Q3.	Discuss any two AI development languages.	5	CO2	BL3
Q4.	Give one example of using probability formula and certainty factor in Artificial Intelligence	5	CO3	BL 2,4
Q5.	Discuss Knapsack problem with the help of an example	5	CO1	BL2,3
Q6.	Discuss the role of Probability and statistics in quantifying fuzzy logic variables.	5	CO2	BL4
Q7.	What is state space problem in artificial Intelligence.	5	CO4	BL4

Section B (10*4=40)

Attempt any 4 questions

Q1.	Discuss TIC TAC TOE example to demonstrate LEARNING from EXPERIENCE.	10	CO1	BL5,6
Q2.	Convert following English Sentences To Propositional Logic” 1. He is lazy but intelligent. 2. He will study only if you teach. 3. It is hot or else it is both cold and cloudy 4. If a= b and b =c then a = c. 5. You will qualify the test only if you work hard	10	CO2	BL6

Q3	Explain the procedure for MEAN END ANALYSIS. How it is used in AI Systems, Give example.	10	CO3	BL1,2
Q 4.	Discuss probability theory and its formula give example of it.	10	CO4	BL4
Q5.	Discuss different types of knowledge representation.	10	CO3	BL4,5
Q 6.	Discuss Fuzzy Sets and their operations.	10	CO3	BL 3,4