



**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

MAKEUP EXAMINATION – JAN 2023

Course Code: CSE 228

Course Name: Principles of Artificial Intelligence

Program : B. Tech

Date: 28-JAN-2023

Time: 01:00PM – 04:00PM

Max Marks: 100

Weightage: %50

Instructions:

(i) Read the all questions carefully and answer accordingly.

Part A [Memory Recall Questions]

Answer all the Questions. Each question carries THREE marks.

(5Qx 3M= 15M)

1. What is Agent? (C.O.No.1) [K]
2. Consider the Following Sentences Translate into predicate logic. (C.O.No.2) [K]
 - a) Chicken is Food.
 - b) Ahamed eats everything Mohammed eats.
3. What is the difference between uninformed and informed search strategies? (C.O.No.3) [K]
4. What is a constraint satisfaction problem? (C.O.No.3) [K]
5. List applications of Hidden Markov model. (C.O.No.4) [K]

Part B [Thought Provoking Questions]

Answer all the Questions. Each question carries TEN marks.

(4Qx10M=40M)

6. Discuss on any two different types of Agent Program. (C.O.No.1)[C]
7. Converting below sentences to propositional logic and applying inference rules: (C.O.No.2)[C]
 - If I work whole night on this problem, then I can solve it.
 - If I solve the problem, then I will understand the topic.
 - Therefore, I will work whole night on this problem, then I will understand the topic.

8. Explain the constraint satisfaction procedure to solve the cryptarithmic problem.

(C.O.No.3)[C]

9. Explain how Bayesian networks statistics provides reasoning under various kinds of uncertainty.

(C.O.No.4)[C]

Part C [Problem Solving Questions]

Answer all the Questions. Each question carries FIFTEEN marks.

(3Qx15M=45M)

10. Draw a Semantic Network in the Following Sentence:

(C.O.No. 1)[A]

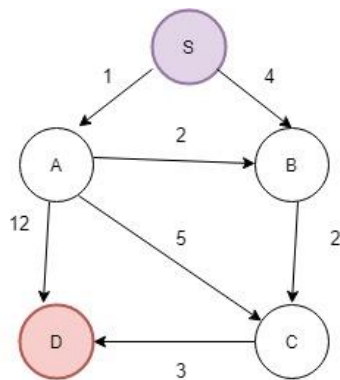
“Every human, animal and bird is living thing who breathe and eat. All birds can fly. All man and woman are humans who have two legs. Cat is an animal and has a fur. All animals have skin and can move. Giraffe is an animal who is tall and has long legs. Parrot is a bird and is green in color”.

11. Explain the Eight Queen Problem With neat sketch:

(C.O.No. 3)[A]

12. Explain the A* Search Algorithm in the below example:

(C.O.No. 2) [A]



HEURISTIC VALUE	
S	7
A	6
B	2
C	1
D	0