

R16

Code No: 137AP

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2021

ARTIFICIAL INTELLIGENCE

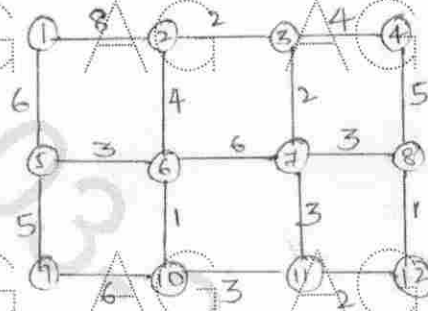
(Common to ECE, IT)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

1. Explain Best first search algorithm and find shortest path from 1 to 12. [15]



2. Explain the concept of searching with non-deterministic objects. [15]

3. Write the algorithm for Wumpus – world agent to find pits, wumpuses and safe squares. [15]

4. Describe the concept of constraint satisfaction problem for 8 queens' problem. [15]

5. Consider the following sentences:

- John likes all kind of food
- Apples are food
- Chicken is food
- Anything anyone eats and is not killed by is food
- Bill eats peanuts and is still alive
- Sue eats everything Bill eats

a) Translate these sentences into predicate logic.

b) Prove that john likes peanuts

[7+8]

6. Explain the concept of reasoning with default information with an example. [15]

7. Explain planning and acting in non-deterministic domains with example. [15]

8. Explain explanation-based learning algorithm with an example. [15]

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