

A1 - Artificial Intelligence :->

* State :

→ All information about the environment.

② necessary
→ All information to make a decision for a particular task

* A1-Agent :-

Atomic Agent :->

Input :->

- ▷ Set of States
- ▷ Operators [Code]
- ▷ Start-state
- ▷ Goal State [test]

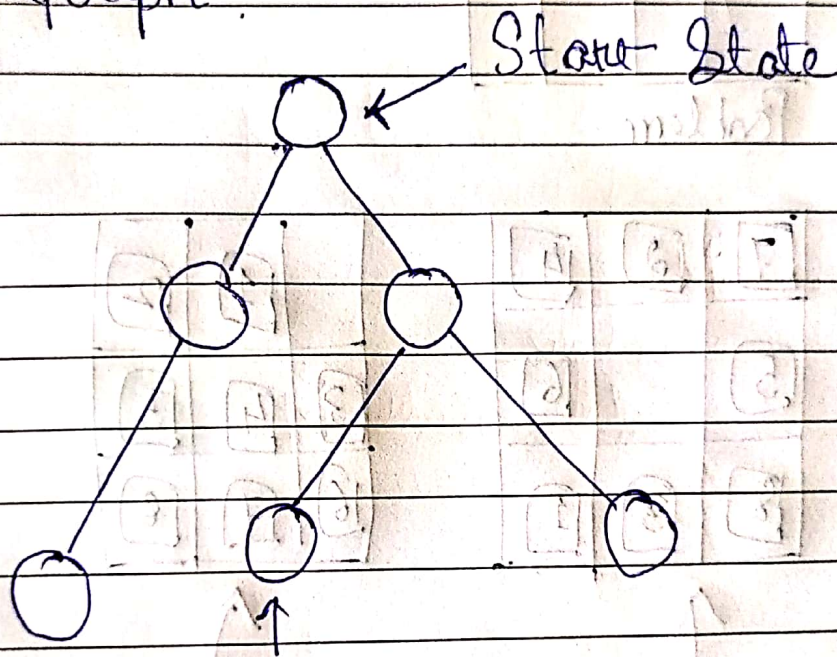
Output :->

Path: Start \Rightarrow a state satisfying goal test

Note : →

There can be multiple goal states

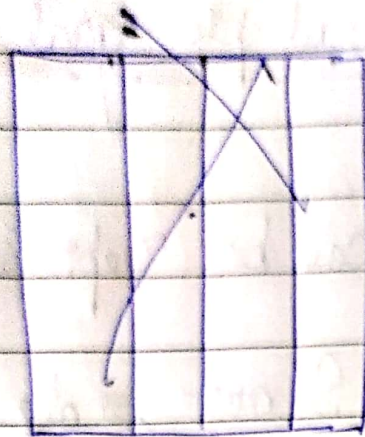
The problem can be represented as Graph :



Nodes are States :-

Edges : Actions (operations)

Example:-



NP- hard Problem.

Start State

7	2	4
5		6
8	3	1

Goal State

	1	2
3	4	3
6	7	8

States: Locations of tiles.

Actions: Move blank left, right, up, down.

goal test: goal is given

Path Cost: 1 per move