07/09/21 | CSPC54- AIML | 10619100
CT-01 | Rajneesh Pandey

Question (1) :
PEAS - PEAS stand for Perfoumance measure, environment, Actuators, sensor of agents. to catagorise them.

(a) Bidding on a item at an auction.

P : Perfoumance Measure : cost, value, necessity, quality
E : Environment : auctioneer, items, bidders
A : Actuators : speaker, display item.
S : sensors : camera, price monitor.

Environment types of above agent
- single agent.
- continuous.
- Dynamic
- Not Observable
- partly : Deterministic/ & stocastic
- partly : Episodic/ sequential.

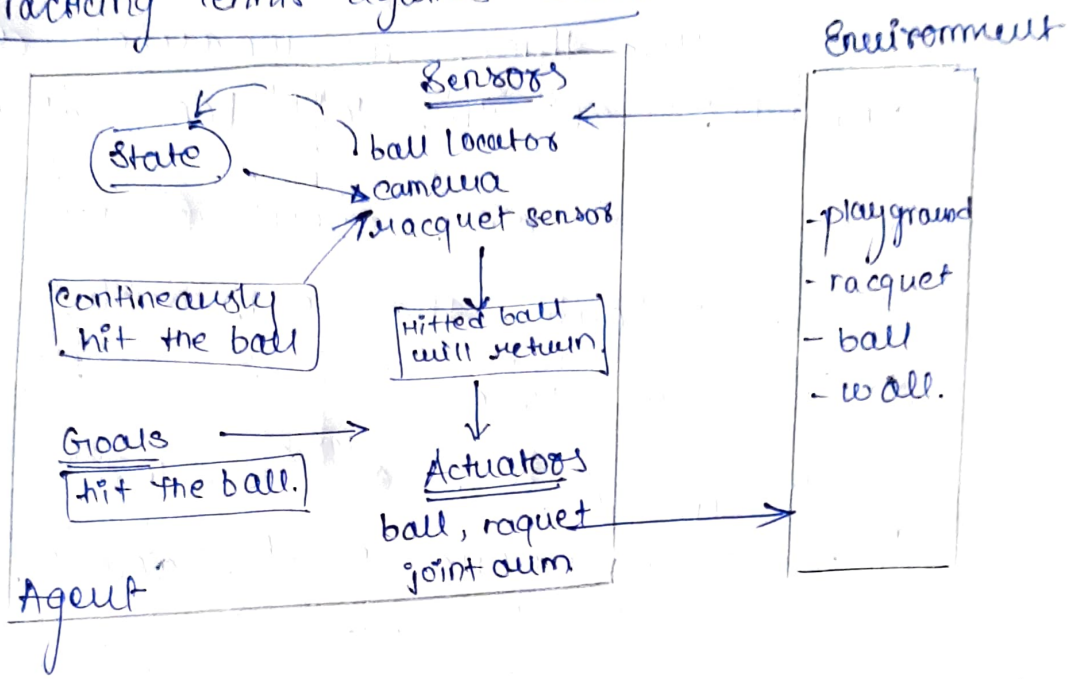
(b) knitting a sweter,

P - size, looking, comfort
E - craft pattern.
A - needles, yarn, jointed arms
S - pattern sensor.

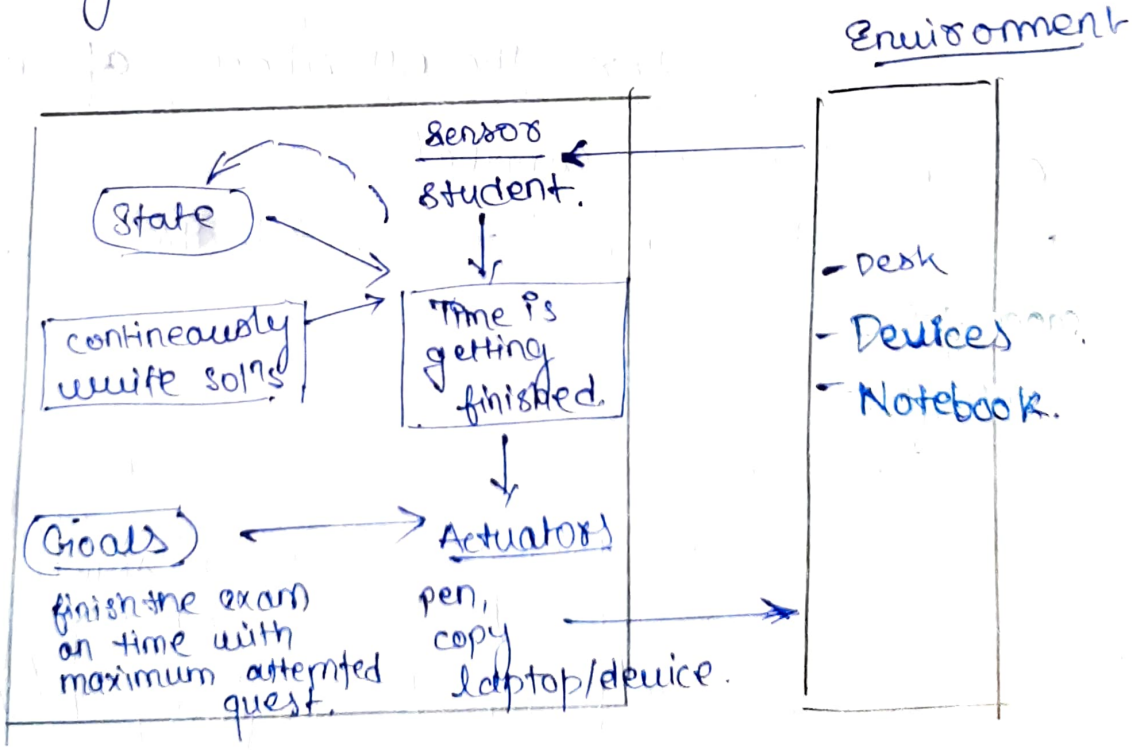
Environment types : continuous, single-agent, observable, Deterministic, Sequential, Static.

Question (2) :

(a) Practicing Tennis against wall



(b) writing an examination through online mode.



Question (3)

(a) The data given is.

- There are three missionaries and three cannibals on the left bank of a river.
- They wish to cross over to right bank using a boat that can only carry two at a time.
- Plan a sequence of crossings that will take everyone safely across.

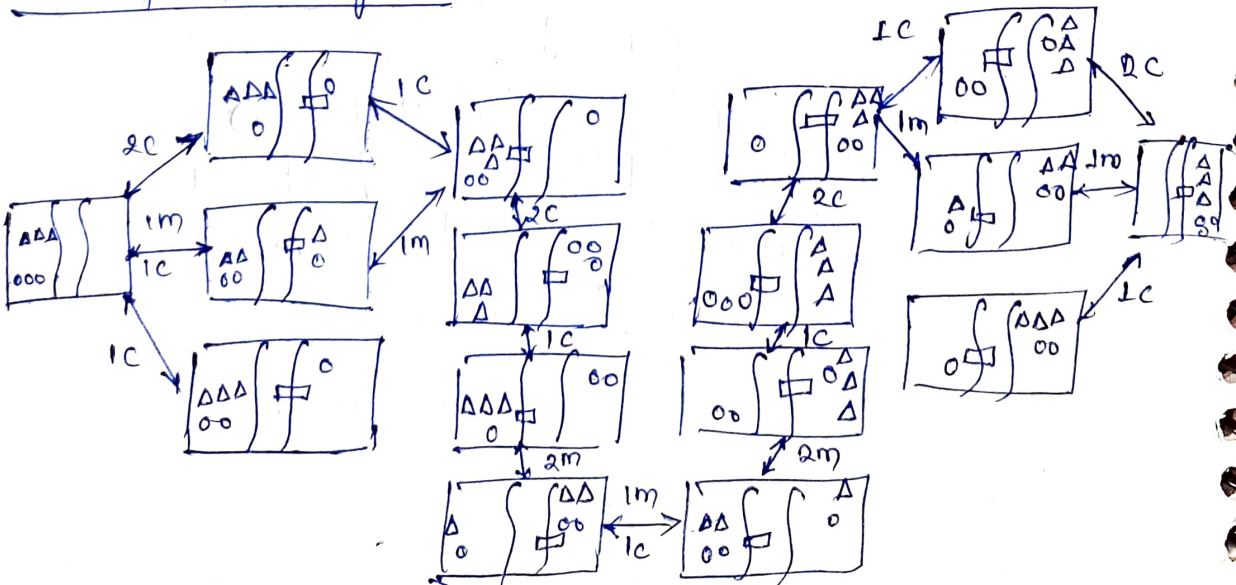
we can use **3-tuple (m, c, b)** to represent the state of one side of river.

m : stands for the number of missionaries.

c : number of cannibals.

b : whether the boat is at this side of the river.

State space diagram



here action takens as,

1m – one missionary cross the river
1c – one cannible cross the river.
2m – two missionaries cross the river
2c – two cannibals cross the river.
1m, 1c – one missionary and one cannibal cross the river.

(b) As this, is good Idea for the repeted state problem to solve with the ~~spar~~ optimal search algorithm.

for A* : we use heuristic as.
number of Δ got other side

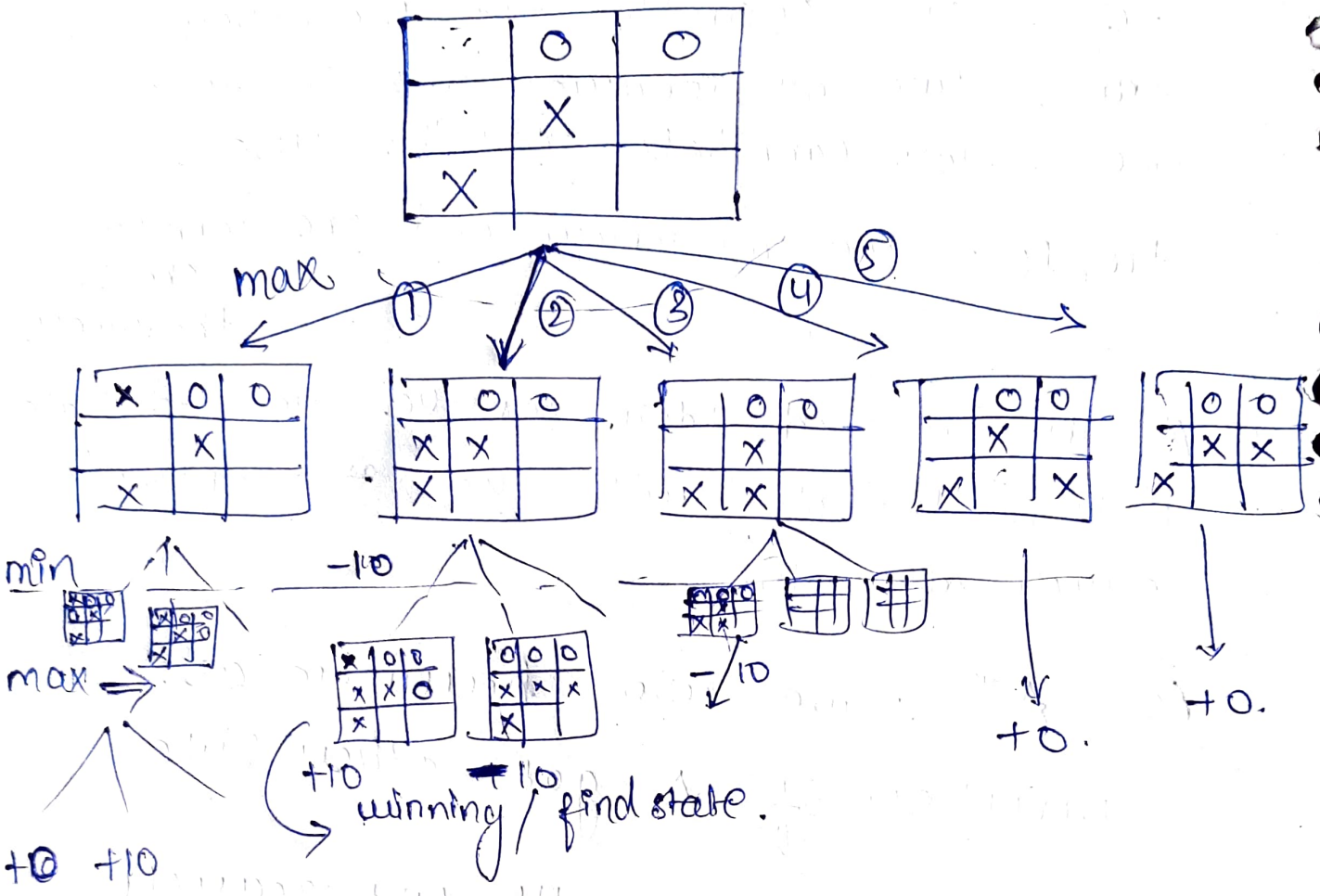
↳ BFS will do breadth fist search on state diagram

(c) A* will give better result as of BFS with.

because
A* is based on the heuristic Functio with greedy.

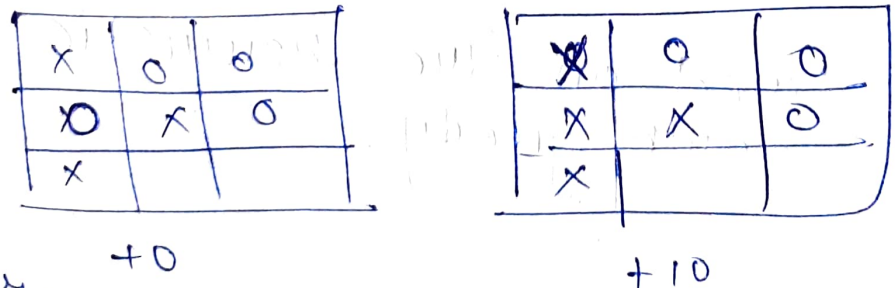
&

Question (4)



move (2) : will give the max value.

So, move (1) will be select by the agent.



becaus, this gives the maximum of all the min.

Question (05)

the branches.

2, 3, 4, 5 will get pruned by apply α-β pruning as, the better value is given by branch 1.