

Assignment

1) Explain Turing test designed for satisfactory operating definition of AI.

- ① The art of creating machines that perform functions that requires intelligence when performed by people.
- ② To judge whether the system can act like a human.
- ③ As shown in fig. in Turing test a computer needs to interact with a human interrogator by answering his questions in written format. Computer passes if human cannot identify whether the written responses are from a person or computer.

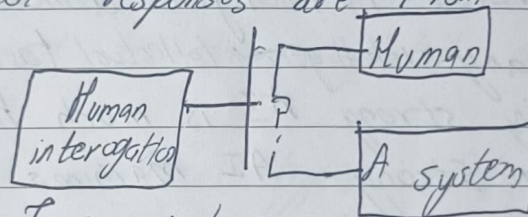


Fig. Turing test Environment

- ④ To pass this test, computer needs to possess the capabilities:
- 1) Natural Language Processing (NLP): It enables computer to interpret the English language & communicate successfully.
  - 2) Knowledge Representation: It is used to store knowledge gathered by the system through input devices.
  - 3) Automated Reasoning: It enables to analyze the knowledge stored in the system & make new inferences to answer questions.
  - 4) Machine Learning: It learns new knowledge by taking current input from the environment & adapts to new circumstances.
  - 5) Computer Vision: It is required to perceive objects from the environment.
  - 6) Robotics: It is used to manipulate those objects.



MAX(X)

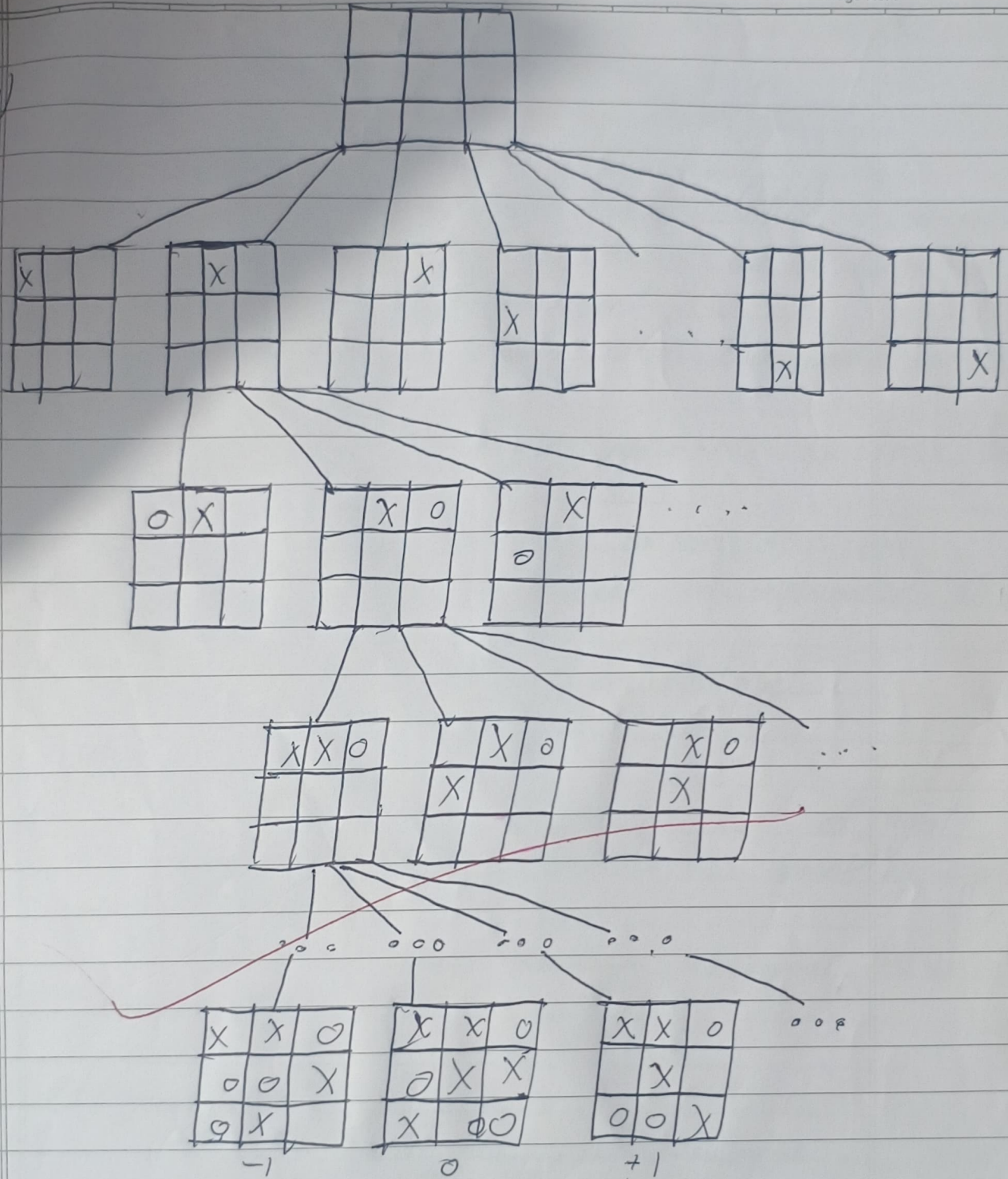
MIN(O)

MAX(X)

MIN(O)

terminal

utility  
value



Tic-tac-toe game tree.

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