CSC341 Lab6A

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Just The Facts, Turing Edition

1)

Yes

2)

No

3)

No

4)

No

5)

Because if does not loop for finite automata, but Turing Machines will loop if they don't get accepted or rejected.

6)

Decides: Never loops, halts for all inputs
Recognizes: Able to get the input, can loop, reject, or accept

Implementation Details

1)

1. Scan the tape and mark the first 0 which has not been marked. If all 0s are marked, go to stage 4. If not, move the head back to the front of the tape.
2. Scan the tape and mark the first 1 which has not been marked. If all 1s are marked, reject.
3. Move the head back to the front of the tape and repeat from stage 1.
4. Move the head back to the front of the tape. Scan the tape to see if any 1s are unmarked. If there are none accept, else reject.

2)

1. Scan the tape and mark the first 0 which has not been marked. If all 0s are marked, go to stage 4. If not, move the head back to the front of the tape.
2. Scan the tape and mark the first 1 which has not been marked. If all 1s are marked, accept.
3. Move the head back to the front of the tape and repeat from stage 1.
4. Move the head back to the front of the tape. Scan the tape to see if any 1s are unmarked. If there are none reject, else accept.